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ANNUAL REPORTS

1904

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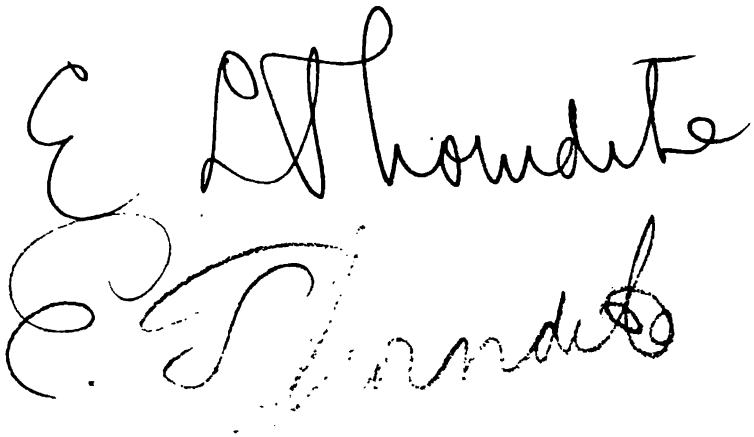
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Columbia University in the City of New York

ANNUAL REPORTS

OF THE

PRESIDENT AND TREASURER

TO THE

TRUSTEES

WITH ACCOMPANYING DOCUMENTS

For the Year Ending June 30, 1904

NEW YORK
PRINTED FOR THE UNIVERSITY
1904

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Sept. 17, 1926
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ANNUAL REPORT

OF THE

PRESIDENT OF COLUMBIA UNIVERSITY

To the Trustees:

In accordance with the provisions of the Statutes, this annual report upon the condition and needs of the University for the year ending June 30, 1904, is respectfully submitted, accompanied with the reports of the several officers of administration, and such other documents as are necessary to cover and record the work of the year.

The resources of the University have been increased during the year in several noteworthy respects. Most important is the payment to the University by Mr. Joseph Pulitzer of the sum of one million dollars to be applied to the establishment and maintenance of a School of Journalism, as one of the professional schools of the University, in accordance with the terms of agreements entered into between Mr. Pulitzer and the Trustees under date of April 10, 1903, July 20, 1903, March 19, 1904, and April 12, 1904. By these agreements, Mr. Pulitzer reserves to himself the right to name, when he see fit, an Ad-

Increase in Resources

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visory Board composed of the foremost journalists and editors, to which Board the proposed plan of organization and course of study for the School of Journalism are to be submitted. Until the members of this Advisory Board are named by the donor, the definite organization of the School of Journalism will not be proceeded with. The many and novel questions involved in the creation of this new School are receiving constant and careful consideration both from the donor and from the University, and it is hoped that the establishment of the School may not be much longer postponed. An unusual degree of public interest has been manifested in the School of Journalism, and it is already clear that its establishment will meet a real and growing need. For the information of the public and that of the numerous inquirers who look forward to enrolling themselves as students in the School of Journalism, when established, the University has printed for general distribution a pamphlet containing the elaborate and convincing article on the proposed School which was contributed by Mr. Pulitzer to the *North American Review* for May, 1904, together with his complementary paper on the Power of Public Opinion which was first printed in the *Encyclopædia Americana*.

Mr. and Mrs. William D. Sloane, of New York, have generously added $225,000 to the endowment of the Sloane Maternity Hospital during the year, completing the fund needed for the support of that admirable and efficient branch of the University's work. The existence, within the University, of this excellently appointed and well-managed hospital

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gives a unique distinction to our instruction in obstetrics and indicates clearly how great would be the advantage to the Medical School if the University were in possession of a general hospital of its own.

The additional building spoken of in the last two Annual Reports as essential to the carrying forward of the instruction in Applied Science, was begun in June last. This was made possible by the munificent gift of $250,000 by Mr. Adolph Lewisohn, of New York, president of the United Metals Selling Co., whose long practical experience with mines and mining led him to see and to appreciate the University's need. The building will bear the name of the School of Mines, which has gained so enviable a reputation during the past forty years, and will make adequate and proper provision for the Departments of Mining and of Metallurgy. Unless unforeseen delays are encountered, the new School of Mines will be ready for occupancy in September, 1905.

Mr. Horace W. Carpentier, of the class of 1848, has once more manifested his solicitous thought for the welfare of his alma mater by the gift of $60,000, in memory of his brother, the late Reuben S. Carpentier, toward the endowment of a chair in the Medical School. In recognition of the gift the chair of pediatrics, now held by Dr. L. Emmett Holt, has been designated the Carpentier Professorship of Pediatrics and the income of the newly established fund will be applied to its support.

Among the other gifts and bequests received during the year ending June 30, 1904, are:

$30,000 from an anonymous donor, for general

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university purposes, to be expended under the direction of the President;

$20,000 from an anonymous donor, for the support, for a period of years, of a new professorship in philosophy;

$10,000 from the Estate of the late Ellen Josephine Banker, to establish a scholarship fund;

$5000 from Mrs. Richard Butler, of New York, to endow the Richard Butler scholarship, open only to male students born in Ohio;

$5000 from an anonymous donor, to enable deserving students to visit the Louisiana Purchase Exposition at St. Louis, Mo.;

$4000 from Mrs. Sarah M. Toppan, of Cambridge, Mass., to endow the Robert Noxon Toppan prize in constitutional law;

$2000 from the Estate of the late Edward A. Darling, formerly Superintendent of Buildings and Grounds of the University, for a drinking fountain in memory of his wife, and to establish an annual prize in mechanical engineering;

$1025 from several donors for a lectureship in German;

$1000 from Rutherfurd Stuyvesant, of the class of 1863, for the Department of Astronomy;

A building, valued at $2500, erected on the property of the University at Morris, Conn., by the Young Men's Christian Association of the University, for social and religious uses by the students in the summer course in civil engineering;

A unique and extensive collection of apparatus to illustrate the teaching of laryngology and rhinology, brought together by Dr. George M. Lefferts during

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his years of service as Clinical Professor of Laryngology and Rhinology, and presented by him to the University on his retirement.

Most significant also are the facts that the equipment of the Department of Mining has been kept up only by gifts from recent graduates of the School of Mines and that more than one hundred alumni have made contributions to the South Field Fund.

A classified summary of the gifts actually paid to the treasurers of the several corporations included in the University during the year ending June 30, 1904, but exclusive of all pledges or promises of amounts not yet received, is given below. An itemized statement of the gifts to Columbia University will be found on pages (267–271) of the Treasurer's report. **Summary of Gifts**

	Columbia University	Barnard College	Teachers College	Total
To establish Trust Funds.....	$1,304,500 00	$ 4,050 00	$ ——	$1,308,550 00
For Buildings and Grounds.....	63,959 50	——	249,200 00	313,159 50
For Current Interest on the Debt.	5,000 00	——	——	5,000 00
For Immediate Use.....	67,861 54	16,062 35	72,504 79	156,428 68
	$1,441,321 04	$20,112 35	$321,704 79	$1,783,138 18

For the years ending June 30, 1902, and June 30, 1903, the corresponding totals were $1,082,581.02 and $1,721,895.06, respectively. In the last three years, therefore, the educational resources of the University, in all its parts, have been increased by gifts in money which amount to $4,587,614.26. This total is exclusive of the gift of $250,000 for the Chapel, of $247,300 of the gift of $250,000 for the School of Mines, and of $344,087.50 of the gift of

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$350,000 for Hartley Hall, and of the pledges of $180,000 toward meeting the conditions that accompany the gift of Mr. John D. Rockefeller to Teachers College—or $1,021,387.50 additional.

College of Pharmacy

By the terms of an agreement approved by the Trustees on March 7, 1904, the College of Pharmacy of the City of New York became a member of the University system from and after July 1, 1904. The agreement is similar to those by which Barnard College and Teachers College were incorporated in the University. By the action thus taken the University influence is extended over another branch of professional education and a large, important, and useful body of men receive University recognition for their calling. The College of Pharmacy will be a valuable addition to the University's resources for teaching and research in botany and toxicology as well as in pharmacology and pharmaceutical chemistry.

The College of Pharmacy is in the front rank of institutions of its kind. It was founded in 1829 and obtained its first charter on April 25, 1831. The object of the College was then stated to be to cultivate, improve, and make known a knowledge of pharmacy and to give instruction in pharmacy by means of public lectures. In 1879 the College of Pharmacy was recognized by the Regents as part of the University of the State of New York. During its history the College has occupied several different buildings. In 1832 the lectures on pharmacy were delivered in one of the lecture rooms of Columbia College. In 1894 the College moved to the well-appointed building, erected for its use, on the north side of

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West 68th Street, between Broadway and Columbus Avenue. At the time of its incorporation in Columbia University the College of Pharmacy had 12 officers of instruction and 326 students. Its property was valued at $265,840, subject to a mortgage indebtedness of $131,000, of which amount $15,000 has since been paid off.

The budget of the College of Pharmacy for the year beginning July 1, 1904, as adopted by the Trustees, provides for an expenditure of $34,879, and estimates the income at $34,940.

General Theological Seminary

Early in the academic year the General Theological Seminary, acting through its Dean, the Very Reverend Wilford L. Robbins, D.D., accepted the invitation tendered by the President in pursuance of the resolution adopted by the Trustees on February 2, 1891, to establish closer and more formal relations between the Seminary and the University. By the terms of the agreement entered upon, Dean Robbins has taken his seat as a member of the University Council, with the privileges of the floor, but without a vote.

The agreement is in substance the same as that entered into with the Union Theological Seminary and printed in full in President Low's Report for 1891 (p. 11).

By this close affiliation with the two Seminaries named the University has given practical evidence of its willingness and its desire to coöperate in making theological training as scholarly and as catholic as possible, without in any way assuming direct responsibility for any one phase or form of Christian

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teaching. It is clear that the relationship between the Seminaries named and the University might be still closer to the advantage of both, and the working out of the present policy may have more important consequences than now appear upon the surface.

The University in 1904

The usual statistical summaries showing the state of the University on June 30, 1904, are appended.

THE SITE OF THE UNIVERSITY

	Square Feet	Acres
A. 1. At Morningside Heights		
Green and Quadrangle...	734,183.08	16.85
South Field.....	359,341.15	8.25
	1,093,524.23	25.10
2. At West 59th Street.....	75,312.38	1.73
	1,168,836.61	26.83
B. Barnard College.....	177,466.60	4.07
C. Teachers College [1]		
1. At 120th Street.....	133,737.00	3.07
2. Speyer School.....	5,213.00	.12
	138,950.00	3.19
D. College of Pharmacy.....	7,531.00	.17
Grand Total.....	1,492,784.21	34.26

In addition, the University owns and occupies 500 acres at Morris, Conn., where the summer course in civil engineering is given from May to September of each year.

The Teaching Staff

The teaching staff, on June 30, 1904, was constituted in the following manner:

[1] Of the site occupied by Teachers College, 2 lots, an area of .067 acre, are owned by the Morningside Realty Co.

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	Columbia University	Barnard College	Teachers College (Excluding the Horace Mann School)	Total (Excluding Duplicates) 1904	1903
Professors.....	94	19	19	94	90
Adjunct Professors	40	8	6	40	31
Clinical Professors and Lecturers...	19	—	—	19	16
Instructors.....	73	5	16	85	80
Demonstrators....	4	—	—	4	3
Assistant Demonstrators.....	11	—	—	11	10
Tutors.....	58	13	6	64	55
Assistants.....	45	6	15	60	65
Curators.....	2	—	1	3	2
Lecturers.....	30	7	1	31	30
Clinical Assistants.	79	—	—	79	79
	455	58	64	490	461
Administrative Officers.....	16	5	9	22	23
Emeritus Officers..	10	—	—	10	10
Total.....	481	63	73	522	494

The enrolment of students as compared with that for the year 1902–03 was as follows:

		The Student Body	
		Gain	Loss
Under the University Corporation:			
Undergraduates in Columbia College.....	504	9	—
Students of Applied Science.....	740	18	—
Students of Law.....	384	—	77
Students of Medicine.....	674	—	121
Graduate Students of Philosophy, Political Science, and Pure Science.....	692	69	—
Students at Summer Session of 1903.....	1001	358	—
Total (excluding 181 duplicates).....	3814		
Undergraduates in Barnard College.....	403	45	
Teachers College.....	688	55	
	4905		
Less Double Registration.....	196		
Net Total.....	4709	202	
Extension Students (Teachers College)....	1590	394	

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At the Commencement of 1904, 822 degrees and 164 diplomas were conferred, as follows:

Bachelor of Arts, Columbia College		102	
Bachelor of Arts, Barnard College		80	
Bachelor of Laws		110	
Doctor of Medicine		178	
Engineer of Mines		38	
Civil Engineer		22	
Electrical Engineer		23	
Mechanical Engineer		21	
Metallurgical Engineer		1	
Bachelor of Science		53	
In Architecture	10		
In Chemistry	4		
In Education	39		
Master of Arts		160	
Doctor of Philosophy		28	
Honorary Degrees		6	822
Teachers College Diplomas:			
Higher Diploma in Education		1	
Bachelor's Diploma in Education		140	
Master's Diploma in Education		22	
Doctor's Diploma in Education		1	164
Total			986

Almost 44 per cent. of the enrolment in the Medical School, and over 17.5 per cent. of that in the Schools of Applied Science is made up of college graduates or students of equivalent training. In 1903–4 there have been in residence at Columbia University (under the Corporation only, and excluding the Summer Session) no fewer than 1360 students who had already been graduated at a college or scientific school or at a European institution of equal rank. These students numbered nearly 46 per cent.

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of the total enrolment under the University Corporation. In this list 214 American and 51 foreign institutions were represented by their graduates. Columbia itself naturally led with 313 degrees, and then followed the College of the City of New York with 196, Yale with 74, Harvard with 71, Princeton with 56, New York University with 31, Cornell with 25, Amherst and the University of Michigan with 21 each, Vassar with 18, Brown with 16, Wellesley with 15, Leland Stanford, Jr., Oberlin, and St. Francis Xavier with 14 each, University of Nebraska and Williams with 13 each, Union Theological Seminary with 12, Adelphi College, Smith, and Wesleyan with 11 each, and Rutgers, University of Chicago, and University of Minnesota with 10 each.

As the Registrar points out (p. 202), the falling off in the attendance at the School of Law is attributable to the new requirement of a baccalaureate degree for admission, which went into effect in the autumn of 1903. The large decrease at the School of Medicine is also due chiefly, if not wholly, to the enforcement of higher standards of admission. A falling off in university attendance due to new and higher educational standards, provided those standards are in themselves reasonable, is a cause for congratulation, not regret. Experience proves that the temporary loss will soon be made good by a better-prepared body of students and therefore by students better worth educating.

The full report of the Registrar (pp. 201–228) discusses the changes in the size and geographical distribution of the student body during the past few years.

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FINANCIAL CONDITION AND OPERATIONS OF THE UNIVERSITY

	Columbia University	Barnard College	Teachers College
Property owned, June 30, 1904:			
1. Occupied for Educational purposes	$11,711,000 00	$1,726,700 00	$2,362,871 61
2. Held for Investment (estimated)	15,347,400 67	672,676 66	231,646 19
Total	$27,058,400 67	$2,399,376 66	$2,594,577 80
Outstanding Debt	4,900,000 00	30,465 80	212,500 00
Annual Budget for 1904–05:			
1. For Educational Administration and Instruction	$1,053,544 08 [1]	$103,520 00	$349,373 00
2. For Interest on Debt.	193,024 48		10,610 00
Total	$1,246,568 56	$103,520 00	$359,983 00
Income for 1903–04:			
From Fees of Students	$468,032 79	$53,213 02	$255,428 12 [2]
From Rents	397,658 00		
From Interest	107,662 09	27,615 00	12,789 34
From Miscellaneous Sources	78,288 87	2,343 28	10,182 96
Total	$1,051,641 75	$83,171 30	$278,400 42

[1] This includes by duplication the Barnard College salary item of $61,550.
[2] Including income from the Horace Mann School, $168,431.25.

The Needs of the University

Of the pressing needs of the University described in the Annual Reports of 1902 and 1903, one at least will soon be met. The space to be provided by the new building for the School of Mines, funds for which have been given by Mr. Adolph Lewisohn as already noted, will greatly improve the conditions that now prevail in the Schools of Applied Science generally, while serving particu-

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larly the needs of the Departments of Mining and of Metallurgy. The transfer of these Departments from the School of Engineering and Havemeyer Hall will set free space there that the other Departments have ample use for at once.

The entire University shares the deep regret expressed by the Dean of Columbia College in his report (p. 84) that no provision has yet been made for College Hall. This building, which has been so long planned, and the need for which is so imperative, will cost, when furnished and equipped for use, nearly, or quite, $500,000. Until it is built Columbia College will remain a homeless wanderer in the University that has grown up from it and about it. It would be a benefaction indeed if funds might be contributed by those who realize what Columbia College has meant to the city and the nation for the century and a half now closing, that would enable the Trustees to begin at once the erection of a worthy and dignified hall for Columbia College.

Hardly second in importance to a College Hall are a building for the Law School and the completion of University Hall. The former building will cost, approximately, $500,000, and to finish University Hall, as planned, $1,000,000 will be required. Until these buildings are ready for use the Library must remain overcrowded and cramped, and be seriously limited in its usefulness, and the instruction in Law, Political Science, and Philosophy cannot be removed from the rooms now temporarily assigned to it in the Library building. The space used by the Department of Architecture in Havemeyer Hall is needed by the Department of Chemistry. A dozen

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other Departments are carrying on their work in temporary and ill-adapted quarters.

Nor must we overlook the point urged upon us so forcefully at the Commencement of 1903 by our distinguished guest, Professor J. J. Thomson, of the University of Cambridge. Professor Thomson warned the American universities of the danger of spending too much proportionately on buildings and equipment and too little upon men. We urgently need endowments for professorial salaries. Many of the world's great discoveries have been made in meager and ill-supplied laboratories by men whose genius and devotion have surmounted every obstacle. Indeed, it sometimes seems as if a scholar's productivity varied in inverse proportion to the completeness of his equipment and the magnificence of his surroundings. It often happens that a large and finely equipped laboratory will consume in its mere oversight and care the time and mental energy that should be devoted to investigation. For its laboratories and lecture rooms, therefore, a University must attract men of the first order of ability, who will not permit themselves to be diverted from teaching and from research, and these men should be rewarded, not lavishly, but becomingly. So long as participation in the work of higher education requires a large material sacrifice which many men can not, and many others will not, make, a great proportion of the best intellect of the nation will not enlist in the service of education. It is important for the community and for the nation that the leaders in scientific and literary production, the scholars, should be recognized by the public

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generally as its servants in the highest and best sense. A compensation that will enable a university professor to live decently, to educate his children without undergoing privation, and to take a becoming part in the public life and service of the community in which he lives, is a standard at which we should aim and below which we cannot afford to fall.

During the year several important amendments to the statutes of the University have been made.

Statutory Changes

On the recommendation of the Committee on Education the annual fee for tuition in the Schools of Applied Science and of Medicine was increased from $200 to $250, to take effect on July 1, 1904. This step was taken after careful deliberation and because of the fact that the cost of instruction in applied science and in medicine has grown enormously in recent years without any corresponding change in the tuition fee. Fees for collegiate and university instruction generally were fixed at a time when the cost of higher education was but a fraction of what it has since become, and through a mistaken sense of policy, as I think, they have not been materially raised, if at all, in recent years.

The Budget of this Corporation for 1904–05 shows that the income from tuition fees will meet but 46.5 per cent. of the cost of keeping the University open, neglecting entirely the very considerable item of interest upon the debt incurred in providing the present site and buildings, as well as interest upon the cost of the grounds and buildings that have been fully paid for. The student, therefore, by the most favorable computation, pays less than one-half of the cost of what he gets. Very frequently he comes to

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the University from a school where the annual charge for tuition is several times as great as that which he pays here.

It would be unwise and contrary to sound university policy to increase the tuition fees if by so doing any class of really deserving and promising students were excluded thereby. But at Columbia there is small likelihood of such a result. The large provision made for the assistance of students of merit and capacity,—$58,664.08 being appropriated for that purpose in the Budget for 1904–05,—and the effective work of the Committee on Employment for Students,—whose report shows (p. 61) that students earned $74,021.17 during the year ending June 30, 1904,—make it almost certain that no really capable student need be turned away from Columbia because of the amount of the tuition fee. This, at least, is our wish and our hope. On the other hand, the large number of those in the Schools of Applied Science and of Medicine who can readily pay a higher fee than that heretofore charged, may properly be asked to do so.

On June 6, 1904, additional chapters of the statutes were adopted, making provision for the Summer Session and for Extension Teaching. Both of these important branches of the University's work have grown up under the authority of resolutions only. They have now fairly passed the experimental stage and have become a stated and permanent part of the activities of the University.

Each is to be directed by an Administrative Board, appointed by the Trustees upon the nomination of the President. The financial responsibility for the

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Summer Session is assumed by the University Corporation, that for Extension Teaching by the Trustees of Teachers College.

The Summer Session was first established in 1900 and now enrols (1904) 914 students in the arts and sciences and 47 in medicine. Of this number all save an insignificant fraction comply with the requirements for admission to Columbia College, Barnard College, or to some one of the other University schools.

Extension Teaching is defined as "instruction given by university officers and under the administrative supervision and control of the University, either away from the University buildings, or at the University, for the benefit of students not able to attend the regular courses of instruction." 1590 Extension students were enrolled during the past year, and the number is likely to increase largely.

The Character and Length of the College Curriculum

The last Annual Report described the steps taken, as a result of the discussion in the Annual Report for 1902, to bring under review the existing plan of instruction in Columbia College. The Faculty of Columbia College have devoted the entire year to the formal consideration and discussion of the questions underlying the work of the College and its relation to the professional schools, and certain tentative conclusions have been reached. A Special Committee, consisting of the President, the Dean, and Professors Cohn, Perry, Thomas, R. S. Woodward, and Woodbridge, will formulate a specific program of studies in accordance with the principles agreed

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to by the Faculty, and report this program [1] to the Faculty early in the autumn. It is hoped that before the close of another year the important matters under debate will be settled, and so satisfactorily settled that they will serve to guide the policy of the University for some time to come.

Inasmuch as the Faculty have not yet completed their deliberations, only the most general reference to the questions at issue is appropriate at this time. It is a satisfaction to note that the debates have been exceptionally able and vigorous and that they have been carried on upon a high plane. Not since the reorganization of the University in 1890 have we had any such thorough and searching examination of fundamental educational questions as that which the Faculty of Columbia College have carried on for many months past. The University Council have also been drawn into the discussion, primarily in response to questions addressed to their body by a Committee of the Faculty of the College.

There is the same diversity of opinion in the University as exists throughout the country as to

[1] For the sake of clearness the terminology used in this Report, and hereafter in the official publications of the University, will follow the recommendations of the *Report of the Committee on College Entrance Requirements*, July, 1899, of the National Educational Association (published by the Association, 1899), as follows:

"Three distinct terms seem to be needed: (1) *Program of studies*, which includes all of the studies offered in a given school; (2) *curriculum*, which means the group of studies schematically arranged for any pupil or set of pupils; (3) *course of study*, which means the quantity, quality, and method of the work in any given subject of instruction.

"Thus the program of studies includes the curriculum, and may, indeed, furnish the material for the construction of an indefinite number of curriculums. The course of study is the unit, or element from which both the program and the curriculum are constructed" (p. 42).

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whether or not the familiar American college can be preserved in the reorganization of higher education which is upon us. It is perhaps fair to say that a small minority do not think it worth preserving. Those who value the college but who think it impossible to preserve that institution in its historic form, regard it as certain that the college will be compelled to give over one-half of its present work to the secondary schools and the other half to the universities and their professional schools. Such a state of affairs would reproduce in the United States the educational organization of Germany. Those who value the college and believe it possible to preserve it by appropriate academic legislation, fall into two groups. The one group feel that the college would be stronger if it stood alone and admitted no admixture of professional studies into its program. The other group take the contrary view and hold that unless the college permits its students to choose professional courses in law, medicine, and technology as part of their curriculum, the college itself cannot continue long to exist.

So far as the consideration of the matter has proceeded, it may justifiably be said that the Faculty of Columbia College, and the judgment of the University as a whole, give assent to these conclusions:

1. The American college in general, and Columbia College in particular, can and should be maintained in its integrity as a school of liberal learning, essential both to the specialization of studies which follows and to the inculcation of those ideals of knowledge and of culture which are the choicest and most useful products of our historic civilization.

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2. With the recent rapid growth of the elective system and the increase in the number of college students, there has been a noticeable laxity in the control and discipline of those students. As a result, the period of college residence is not always as well spent as it should be in acquiring habits of industry and application and in promoting mental and moral growth.

3. The remedy for this condition is a closer oversight of undergraduate students and a stricter control of their curriculums. To attain these ends it is not necessary to sacrifice the benefits of an elective system, wisely framed and carefully administered.

4. The time-element in a college curriculum is important, but not so important as the attainment of a certain standard of scholarly excellence and intellectual maturity. When that standard is reached, and not before that, the student should be graduated.

5. The professional schools of the University should require for admission the completion of a college curriculum not less than two years in length, or its equivalent to be tested by examination. This standard of admission, where not now fixed, *i. e.*, Schools of Medicine and of Applied Science, should be enforced as soon as practicable.

6. The College, and the University as a whole, will gain, not lose, by adhering to the policy of permitting undergraduate students to choose professional courses in law, medicine, technology, teaching, or fine arts, as part of a curriculum leading to the degree of bachelor of arts. There is earnest dissent from this conclusion on the part of a minority.

On one point the Faculty of the College are unani-

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mous in their desire to reverse what has been for years accepted as the policy of the University. In the Annual Report for 1902 (p. 22) it was stated to be settled policy at Columbia that "Columbia College shall offer but a single degree, that of bachelor of arts, and that that degree shall represent the elements of a liberal education as it is conceived and defined by the Faculty of Columbia College." The Faculty are now prepared, without dissent, to frame one or more curriculums that shall give the students who follow them a general education based on the study of the natural sciences, and to offer to such students the degree of bachelor of science. These students would not be required to offer Latin for admission or to pursue the study of Latin in college. Should the policy thus indicated finally be adopted, Columbia College will in future confer two degrees, bachelor of arts and bachelor of science, instead of one. The main point of difference between the two would be that a knowledge of one ancient language, which is almost invariably Latin, is prescribed for the first, but not for the second. By a decisive vote, the Faculty declined to recommend that the degree of bachelor of arts be conferred upon students who have not studied Latin.

At present students coming to Columbia who wish a general, not a technical, education and who have not studied or do not care to study Latin, may only be received, if at all, as special students. If the proposed plan goes into effect, such students would hereafter enter Columbia College as candidates for the degree of bachelor of science.

The settlement of this question will immediately

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raise another, namely, that concerning the degree of Bachelor of Science as now conferred at Columbia. This degree is at present given by us as a technical or professional degree only, and the name of the curriculum for which it is granted appears on the diploma. At present we create bachelors of science in chemistry, in architecture, and in education. The confusion and misapprehension that will certainly follow from the use of the same designation to mark the completion of a general and of a professional curriculum, suggest the desirability of having the questions involved laid before the University Council in the near future in order that the Trustees may have an authoritative expression of the views of the representatives of the teaching staff.

The Degree of Bachelor of Science

When Teachers College entered the University it maintained a two-year collegiate course preparatory to its strictly professional work. This policy of carrying on general preparatory work of collegiate grade had been forced upon Teachers College by the conditions prevailing in the United States relating to the professional training of teachers. It is obvious, however, that it involves duplication of effort and expense to keep this course in operation after the inclusion of Teachers College in the University system, as Columbia College is fully equipped to do this work for men, and Barnard College for women, who look forward to subsequent professional study with a view to teaching. Nevertheless, the immediate transfer of the collegiate work of Teachers College to the two undergraduate colleges was not possible, or

The Collegiate Course at Teachers College

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even easy, because of financial equities and personal obligations that had grown up. During the year just past a plan to effect this transfer on and after July 1, 1905, has been worked out and is almost ready for submission to the governing boards of the three corporations concerned. When this transfer is effected Teachers College will be able to devote its entire energy and income to purely professional instruction, and to Columbia College and Barnard College will be relegated full responsibility for whatever strictly undergraduate instruction is given at Columbia.

The Unification of the University

The general efficiency of the University is greatly increased and the burden of administration which rests upon the teaching staff is much lightened, by the unification and simplification of University administration which goes steadily on. The care of the buildings and grounds and the direction of the janitorial force of the four corporations now included in the University are all in the hands of the Superintendent of Buildings and Grounds, and the University Librarian is the responsible officer in charge of every collection of books anywhere within the University's bounds. The unification of the registration system is almost completed, and doubtless will soon be entirely so. As each step in this direction of administrative unification has been taken, it has been followed by just the advantages and savings that were predicted for it. The administrative machinery of a great University is necessarily large and complicated, but it should run noiselessly, smoothly, and without sensible fric-

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tion. This end can be accomplished by following the rules which prevail in any great business undertaking and putting every detail of any one division or class of work under a single responsible head, with entire freedom to solve his own problems in his own way so long as the University is efficiently served.

The influence and authority of the University Council grow greater year by year, and any successful movement to control or direct the opinion of the University must of necessity involve the Council's co-operation. At present, the Council has no such direct control over the action of other Faculties as it has over the Faculties of Political Science, Philosophy, and Pure Science, but its moral influence on any doubtful question arising in any part of the University would certainly be strong, and probably determining. This fact makes for legislative harmony as the policy above outlined makes for administrative simplicity and efficiency.

Fine Arts

While the University is yet without funds with which to develop adequate instruction in the fine arts, the project to organize a School of Fine Arts at Columbia out of the material at present existing has been carried forward to a point where a definite plan will soon be submitted to the Trustees. The delay of nearly two years has been due to a desire to make a thorough study of the conditions of the problem and to the painstaking efforts that have been made to deal in the wisest way possible with the subject of instruction in architecture. The staff of the Department of Architecture have united in the formulation of a detailed plan

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for its development, and some of the most eminent practising architects have been kind enough to give the University the benefit of their criticism and counsel.

Messrs. Grosvenor Atterbury, William A. Boring, John M. Carrère, Edward P. Casey, Walter Cook, Charles C. Haight, Thomas Hastings, J. Monroe Hewlett, Charles F. McKim, Henry Rutgers Marshall, and Lloyd Warren responded to the invitation of the President to assist the University by a statement of their views on training for the practice of architecture. The resulting papers were full of value and suggestiveness, and the writers have placed the University under new and heavy obligations to them.

The reorganized and strengthened Department of Music, the headship of which has been accepted by Dr. Cornelius Rübner, of Carlsruhe, will take its proper place in the new Faculty, and will labor not only to give advanced instruction in music, but also to train the musical taste and sense of appreciation of music of the students as a whole. In other words, not alone music as an art and as a technique, but music as an integral element of culture, will be emphasized and its influence extended as far as possible.

The University Council have appointed a special committee to report a plan for the organization of a School of Fine Arts, and their recommendations to the Trustees will be made in the near future.

On August 11, 1904, there passed away, in his eighty-second year, Samuel Putnam Avery, creator of the Avery Architectural Library, and a consist-

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ent and generous friend of the fine arts at Columbia University. "He exerted a salutary influence not simply because he was ever ready to give practical support to an enlightened movement, but because he reinforced his more tangible contributions with the counsel that comes from taste and judgment." We shall gratefully preserve his memory and hope to achieve some substantial measure of success in aiming at the ideals for which he labored so long and so faithfully.

Physical Training

The place of physical training in education is now definitely fixed at Columbia, and the instruction is carefully organized. Physical training is an independent department, on the same plane as, for example, Greek, mathematics, or physics. It is represented on the faculties, and the gymnasium is nothing more nor less than a laboratory in which certain work is prescribed and the rest optional. For members of the Freshman and Sophomore classes in the College and for members of the first-year and second-year classes in the Schools of Applied Science, specified courses offered by the Department of Physical Training are prescribed. For all other students, gymnasium work is optional, and may be taken either individually, in groups, or in organized classes. The aims of the instruction and the methods followed are clearly set forth in the report of the Director of the Gymnasium (pp. 195–200).

The first consideration that weighs with the Department is to promote the health and physical efficiency of all the students. The second consideration is to offer to those students who desire or need

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special forms of developmental exercise, that which will do them the most good. The third consideration is to make appropriate provision for the comparatively small number of those who take part in intercollegiate athletic contests. With the completion of the splendid Thompson memorial building at Teachers College, a long step forward will be taken. It will hereafter be possible to provide for women the same opportunities for physical training and exercise that are now given to men, and, in addition, to enter upon the systematic training of physical-training teachers in a thoroughly scientific manner and with ample equipment.

With a view to ascertaining the precise effect of the prescribed work in physical training, the members of the Freshman class in the College were given a special physical examination toward the close of their year's work in the Gymnasium. The result is shown in this table:

	October, 1903		April, 1904		
	Average	Variability	Average	Variability	Increase
Weight (kilos)	56.7	6.66	58.9	6.67	2.2
Height (centimetres)	169.9	6.55	170.9	6.20	1.
Lower chest, normal (centimetres)	76.4	4.01	77.6	4.10	1.2
Lower chest, expanded (centimetres)	82.8	3.95	85.3	4.06	2.5
Lung capacity (cubic centimetres)	407	5.81	414	5.60	7.
Total strength (kilos)	489	9.72	640	10.17	151

The members of the same class were also asked to express their own opinions as to the effect of the pre-

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scribed physical training upon them in a few definite respects. Their replies show the following results:

	Better	Poorer	No effect noted
	%	%	%
1. General health	85.1	0	14.9
2. Digestion	47.3	0	52.7
3. Sleep	44.6	0	55.4
4. Ability to concentrate the mind	57.1	2.7	40.2
5. Bodily control	91.9	0	8.1

It is plain, therefore, that the present plan of instruction and training is not only beneficial, but that it is recognized as such by the students.

Of the total enrolment in the Department during the past year, no fewer than 638 were in training to take part in some specific sport. For football, 102 were enrolled; for rowing, 95; for baseball, 72; and for track athletics, 66. Athletic contests are most useful when they tend to increase the number of those preparing to compete, and so spread the benefits that follow from the careful and systematic habits of life that training involves.

Intercollegiate Athletic Contests

The wide-spread public interest in intercollegiate athletic contests, their popularity with the student body, and their manifest dangers if left to develop without responsible control, raise some difficult problems in any large university. These contests are surrounded by moral as well as by physical danger. The temptation to neglect serious intellectual work for the sake of the

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game, the handling of large sums of money by young men who have never had opportunity for business training or to bear serious responsibility, repeated absences from the University on long journeys, the false standards of excellence that are often built upon the applause of the crowd, the risk of serious physical injury due to improper physical condition, and the relaxing of ethical standards in a feverish anxiety to win, are dangers of no small magnitude. For a university to overlook them is to abdicate as an educational institution. No mass of learning will compensate for wrecked health, debased morals, or false ideals.

To prohibit intercollegiate athletic contests is, in my opinion, more than unwise; it is unreasonable. To regulate and control them, however, is of the first importance.

At Columbia a systematic policy has now been fully worked out, and as it gives satisfaction to the teaching staff as well as to the students and to the alumni who retain an active interest in athletic sports, it is hoped that it will, in principle at least, be permanent.

No body or organization of students may represent the University in public, in an athletic contest or otherwise, without conforming to a published code of regulations. Violations of the regulations are infractions of academic order and are treated accordingly. The code of regulations has been drawn up under the direction of the President, in pursuance of the following resolution adopted by the University Council on November 19, 1901:

"RESOLVED, That the President is hereby author-

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ized to appoint a University Committee on Student Organizations, and such other committees and officers as he may from time to time deem necessary, to supervise and control all student organizations, athletic and other, which in any way represent the University before the public."

Acting in accordance with the terms of this resolution, the President appointed a University Committee on Student Organizations, consisting of three professors, and empowered it to draw up a constitution for the government and regulation of all such organizations, to frame and enforce rules for the conduct of their affairs, and to appoint such other officers as should, in the judgment of the Committee, be necessary for carrying their regulations into effect.

The President has also appointed a University Committee on Athletics, consisting of three graduates and two students, and empowered it to adopt and administer rules of eligibility, not involving questions of scholarship, and to govern the participation of students of Columbia University in intercollegiate athletics in accordance therewith.

In its practical operation this plan is very simple. It puts into the hands of officers of the University absolute control of these four matters: The health of participants in intercollegiate contests; the standard of scholarship to be required of such participants; the schedules of games to be played away from New York; and disposition of the funds subscribed for a given sport or taken in gate receipts.

The Director of the Gymnasium is the final arbiter

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in matters of health, and no student may participate in any intercollegiate contest or be a candidate for any team unless he receives a pass-card from the Director of the Gymnasium, after an exhaustive physical examination. Last year six pass-cards were refused and nine conditional cards were issued as the result of such examinations.

The University Committee on Student Organizations, composed of three professors, recommended the following rules relative to scholarship, and the University Council adopted them on May 29, 1903:

"1. A regular student to be eligible for athletics must have passed satisfactory examinations in at least 80 per cent. of the work for which he was registered during the preceding year or half-year.

"2. No student whose aggregate deficiencies at any time amount to more than 20 per cent. of a full year's work in the courses in which he is registered shall be eligible for any athletic team.

"3. If a special student, he must take courses amounting to not less than 15 hours per week; he must have passed a satisfactory entrance examination, or else he must have been in the University at least one academic year, must have taken and completed courses amounting to at least 15 hours per week during the preceding year, and must have passed examinations in subjects aggregating at least 12 hours in those courses when such were given. In the absence of required examinations he must file with the Secretary of the Committee a certificate from the officer in charge of his course that he has satisfactorily fulfilled its requirements.

"4. No student who has been dropped from his

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class, or from any school or department of the University, by reason of deficiency in his studies, shall be eligible for any athletic team; nor shall any change in registration, such as from special to regular, or *vice versa*, make an otherwise ineligible student eligible. Such student must complete an academic year's work and pass satisfactory examinations therein before he shall be deemed to be in good standing, unless he shall, in the meantime, have been permitted by the proper authorities to regain his class."

These rules of the University Council are also applicable to all students representing the University in any form of public contest, performance, or exhibition, other than athletic.

In order to ascertain the practical effect of these rules, the Registrar was called upon to furnish a statement showing the standing in scholarship of the participants in intercollegiate athletic contests during the past year. His reply is given in tabulated form and speaks for itself:

	College	Applied Science	Law	Medicine	Graduate Schools	Total
A. Excellent	1	10	—	—	—	11
B. Good	19	39	13	—	2	73
C. Fair	10	12	5	—	3	30
D. Poor	—	—	—	—	—	—
F. Failure	—	—	—	—	—	—
Withdrawn from the University	—	2	—	—	—	2
Total	30	63	18	—	5	116

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In order to control absolutely the absence of students from the University, the schedule of games to be played away from New York must also be approved by the Committee on Student Organizations.

For the supervision of the financial management of student organizations, an officer of the University is designated as Comptroller, a system introduced by President Low which works admirably. The function of the Comptroller is to keep the managers of the various student organizations from incurring obligations beyond their ability to pay, and to see that the money available for the support of any organization or sport is spent for proper purposes in amounts not excessive. To these ends the managers of every student organization are required to submit to the Comptroller, at a date fixed by him, a budget for the year. The Comptroller has power to pass upon this budget and to modify it at his discretion. He also has authority to designate the amount of money to be raised in advance, from membership fees or otherwise, which shall be required as a guarantee fund for the year, by any association, club, or society; and no such organization is allowed to incur any indebtedness or financial responsibility whatsoever, or to fix any dates for games or performances until the sum so required as a guarantee fund has been deposited to its credit by the Comptroller, in a designated bank. All moneys received must be deposited in this bank and all payments must be made by check. Under no circumstances are bills paid from cash receipts. No money is drawn from this bank for the account of any association except

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upon a voucher countersigned by the Comptroller or by some person duly authorized by him. The Comptroller, furthermore, has authority to prescribe the form in which the accounts of every such association shall be kept, and no person is allowed to serve as treasurer of any association who is unable or unwilling to keep the accounts in the form prescribed. Any student incurring obligations outside of the budget, or in excess of the budget, as approved by the Comptroller, is liable to suspension or expulsion from the University.

It will be seen, therefore, that the University supervises, through its own officers, in the case of participants in intercollegiate athletic contests, the student's health, his scholarship, his absences from the University, and his financial obligations. The supervision of the financial administration by the Comptroller is so conducted as to give a valuable business training to the managers and treasurers of the several student organizations.

All other matters relating to athletic sports are placed under the control of a committee of alumni and students, known as the University Committee on Athletics. The members of this Committee, not officers of the University, deal with all questions of eligibility, amateur standing, coachers and trainers, and the like. The members of this Committee are peculiarly fitted for this work by their knowledge and their interest; university officers, as a rule, are peculiarly unfitted for it by their lack of knowledge and of interest.

The system of control here described is now fully established; it is working without friction and has

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the support of both alumni and students. It firmly establishes university control over the participation by students in athletic contests, and it draws a sharp line between the functions of university officers and those of representative alumni and students in exercising this control. On the business side it involves training as well as supervision. For its success the University is in large measure indebted to the support and coöperation of those alumni who have promptly responded to every call that has been made upon them for advice and assistance.

From a theoretical point of view much may be said for the endowment of intercollegiate athletic sports and the abolition of gate receipts, as has often been proposed. But so long as Columbia is in urgent need of large sums for the support of instruction and research and for the erection of buildings, and so long as the present system of financial control is in satisfactory operation, it would be an error of judgment to ask that we be put in possession of the large sum of money necessary to endow our athletic sports.

Development of South Field

As soon as South Field came into the possession of the Trustees a special committee was appointed to study carefully the question of the proper development of South Field for the uses of the University. This committee was appointed on October 5, 1903, and, its work being completed, was discharged on April 11, 1904.

Messrs. McKim, Mead & White submitted carefully elaborated plans for the development of the property, and these, after prolonged study and con-

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sideration, were adopted in substance by the Trustees. The main features of the plan, as adopted, are these:

1. The construction of a terrace across the northerly side of South Field, parallel to the southerly line of 116th Street. This terrace will have a width of 90 feet, and be on a level with the highest point of the street.

2. The location on this terrace, at the corners of Broadway and 116th Street and Amsterdam Avenue and 116th Street, respectively, of buildings to be used for academic purposes; that is, for class-rooms or laboratories, as the needs of the future may determine. These buildings will correspond in general appearance to the projected buildings for College Hall and the Law School on the north side of 116th Street.

3. The construction of a terrace wall, about 10 feet in height, across South Field, parallel to the line of 116th Street, at a point 90 feet south of that line. This terrace wall is the mode of treatment adopted in order to overcome the engineering and architectural difficulties due to the difference in level, amounting on the average to 13½ feet, between the north and south lines of South Field.

4. The division of South Field immediately below the terrace into three quadrangles—an easterly, a middle, and a westerly—and the erection of dormitories or residence halls for students about the easterly and westerly quadrangles.

The treatment of the middle quadrangle is left open for the present, since there is no immediate necessity for deciding upon it.

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The base and cornice lines of the buildings to be placed upon South Field are to be uniform with the base and cornice lines of the buildings erected north of 116th Street, thus giving unity to the entire group of University buildings, dominated by the Library.

Plans have been accepted and contracts let for the erection of Hartley Hall and one other dormitory, similar in size and style, and unless unfore- **The Dormitories** seen delays are met with, both residence halls will be ready for occupancy in September, 1905. These buildings will be of stone and over-burned brick, harmonizing in style with the present buildings. The floors and partitions will be of re-enforced concrete construction. They are each to be 9 stories in height exclusive of attic and basement, and 137 feet long by 60 feet wide. They will be lighted throughout by electricity and heated by steam, and there will be telephone connection on each floor. The electric current for the buildings will be brought from the main power plant of the University. There will be four electric passenger elevators, with freight compartments. Trunks and supplies will be brought in at the street side of the connecting building, where an electric elevator will take them to the basement for storage or for distribution to the several elevators. In the basement will be a low-pressure heating plant, filters, coal storage, trunk storage, and lockers, for employees.

The two dormitories will contain 606 rooms, both single and double, all being outside rooms. The plans provide for 484 beds, but the arrangement permits of flexibility in renting the rooms in suites. The

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average size of the bedrooms is about 8 feet by 14.6. The studies will average 10 by 14.6 feet. There will be a number of double rooms. All rooms are nine feet high. Each bedroom will have a clothes-closet and an enameled basin with hot and cold water, and will be provided with heavy oak furniture. There will be four shower-baths with slate partitions on each floor.

The only entrance to each building for students will be on the side facing the campus, and it will lead directly into an assembly room 60 feet square, with limestone floor. This room runs up through two stories and has a large open fireplace opposite the entrance.

With the completion and occupancy of these two splendid buildings the dormitory life which Columbia has lacked for half a century will be restored. Students will be able to have comfortable homes on the university grounds at moderate cost and the entire period of their student life will be passed amid academic surroundings in a university atmosphere. It is hard to overestimate the advantages to the student which the new conditions will bring.

The Chapel

After long and careful study, plans and specifications for the University Chapel, for the erection of which an amount not to exceed $200,000 had been pledged by anonymous donors, as stated in the last Annual Report, were prepared by the architects, Messrs. Howells & Stokes, and accepted by the Trustees on June 6, 1904. After bids were received, it appeared that the building, as designed, could not be erected for a less cost than

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$250,000. With characteristic generosity, the donors expressed a willingness to increase their gift to $250,000, thus making it possible to go forward without delay with the very satisfactory design that had been prepared. Excavation was begun early in September and the work is being rapidly pushed to completion.

The Chapel building will, it may be said with confidence, be unique in many respects and singularly well adapted to its purpose. It will be cruciform in shape, the greatest length being 122 feet and the width at the transepts 77 feet. In all nearly 1000 sittings will be provided, of which 120 are in the choir, which, in accordance with the practice in the English cathedrals, can itself be used for a religious service at which the attendance is small. In external appearance the Chapel will harmonize completely with the buildings already erected. The material of the structure will be over-burned brick and Indiana limestone. It is worthy of remark that the building will be unmistakably a place for religious worship, and that it will be a distinguished example of the style of ecclesiastical architecture that is frequently found in the cathedral churches of Northern Italy.

Students at the St. Louis Exposition

The anonymous donor who contributed the sum of $5000 to the University in order that a number of students, otherwise unable to do so, might visit the St. Louis Exposition, was the means of enabling 67 students to make an intelligent study of what is perhaps the greatest of international expositions. Allotments were made to students as follows:

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Columbia College	9	Political Science	4
Applied Science	14	Philosophy	9
Law	8	Barnard College	5
Medicine	6	Teachers College	10
Pure Science	2		
			67

Each student to whom an allotment was made reported, on arrival in St. Louis, to the officer in charge of the Columbia University exhibit, and afterwards prepared a brief report upon the results of the trip. The gift was a most timely one, and its benefits were educational in the truest sense.

Barnard College

Barnard College continues to grow in size, but its work is not yet upon a thoroughly satisfactory foundation. Additional free income of not less than $20,000 a year, which an endowment fund of $500,000 would produce, is needed in order to care properly and adequately for what has been so well begun. The instruction in the history of art, in music, in physical training and hygiene, in law and government, and in domestic and sanitary chemistry, for which the Dean asks in her report (p. 170), is already in existence in the University, but there are at present no funds available to meet the cost of extending these courses to Barnard College students, or of adapting them, when necessary, to their special needs. From the time of its foundation Barnard College has earned public confidence and gained public support by shrinking from no responsibility that the task before it involved. Any other policy would be suicidal, but it should be clearly realized by the public that Barnard College needs assistance badly and needs it at once.

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A dormitory for the students of Barnard College should be begun without delay. Students in the East, West, and South are constantly complaining that they are deprived of the exceptional opportunities which Barnard College offers because of its membership in the University, by the fact that their is no college dormitory in which they may make their home. Inasmuch as a well-administered college dormitory will yield nearly, or quite, 4 per cent. on the cost of the structure, it is clear that a gift, or gifts, of $500,000, which could be expended in the erection of one or more dormitories on Milbank Quadrangle, would provide not only the dormitories themselves but also the additional endowment mentioned above.

The first steps have been taken to bring about a careful examination of the existing program of studies by the Faculty of Barnard College, with a view to a revision of the curriculums offered to students. In a way, the program of studies offered at Barnard College is dependent on that offered at Columbia College, but it is also an independent problem. The weakness in the program generally offered by women's colleges is that it follows closely or even slavishly that usual at colleges for men, and so fails to meet the peculiar needs that many college women feel. The late General Francis A. Walker pointed out years ago how largely colleges for women had missed their opportunities in this respect. In any revision of the program of studies at Barnard College, it will be kept in mind not only that a sound standard is to be maintained in letters and in science, but also that Barnard College is a college for

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women, not for men. The list of electives offered should contain carefully chosen courses in domestic science, domestic art, sanitary chemistry, the fine arts, and related subjects that are especially adapted to the training of college women. All of this instruction exists in the University and could readily be included in the Barnard College program at very moderate cost.

Teachers College

The year has not been a favorable one for raising large sums of money for endowment, and it is not possible to report that any substantial progress has been made in meeting the terms of Mr. John D. Rockefeller's conditional gift of October 20, 1902, amounting to $500,000. The work of Teachers College is now so thoroughly established and so highly appreciated in Europe as well as throughout the United States, that there must be generous men and women who will unite with the Trustees in putting it on a solid financial foundation. By the terms of Mr. Rockefeller's offer, he will add $250,000 to the endowment fund of Teachers College so soon as the existing debt of $190,000 (incurred in increasing the capacity of the College and in installing a heating and lighting plant) is extinguished. Toward this debt about $80,000 is pledged; so that $110,000 additional would enable the Trustees to pay the debt in full and add $250,000 to the endowment fund.

Mr. Rockefeller also agrees, after the debt is paid, to duplicate, dollar for dollar, all contributions made in cash by others toward the endowment fund, provided that meanwhile no further debt has been

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allowed to accumulate. Since more than $100,000 has been promised by others than Mr. Rockefeller toward this endowment fund, provided the debt is first paid, it is clear that the $110,000 now needed to discharge the debt would not only add $250,000 to the endowment fund, as pointed out above, but would also bring to the Trustees, for endowment, the $100,000 named and $100,000 of Mr. Rockefeller's second $250,000. So that a gift, or gifts, of $110,000 now means the payment of the debt and the addition of at least $450,000 to the endowment fund. If another $150,000—or $260,000 in all—could be raised, Mr. Rockefeller's conditions would be fully met, the debt cleared off, and the endowment fund increased by $750,000.

The Trustees urgently ask for the support necessary to enable them to meet Mr. Rockefeller's conditions, and they are amply justified by what has been accomplished and by their own generous gifts in relying upon the public to aid them.

Conclusion

Within a few weeks we shall formally celebrate the one hundred and fiftieth anniversary of the establishment of King's College, the charter for which passed the seals on October 31, 1754. The small college of the Province, with its single teacher and eight students, is now a nation's university with an army of teachers and students more than one-third as large as the population of the New York which hailed the opening of the doors of King's College. The old order has changed and given place to the new; but the aim and purpose of our foundation have not changed a particle. Columbia Uni-

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versity, like King's College of George the Second's day, has "the good design of promoting a liberal education" and strives "to make the same as beneficial as may be," not only to the inhabitants of New York, but to those of the mighty nation into which the little fringe of seaboard settlements has meanwhile grown.

NICHOLAS MURRAY BUTLER
President

October 3, 1904

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APPENDIX 1

STATISTICS REGARDING THE TEACHING AND ADMINISTRATIVE STAFF FOR THE ACADEMIC YEAR 1903–1904

Summary of Officers

	1902–1903	1903–1904
Professors	90	94
Adjunct and Associate Professors	31	40
Clinical Professors and Lecturers	16	19
Instructors	66	73
Demonstrators	3	4
Assistant Demonstrators	10	11
Tutors	50	58
Curators and Lecturers	28	32
Assistants	47	45
Clinical Assistants	79	79
Officers of Instruction	420	455
Officers of Administration	17	16
Emeritus Officers	10	10
Total	447	481

VACANCIES

Occurring, unless otherwise indicated, on June 30, 1904

Professors and Administrative Officers

Albert H. Buck, M.D. Resigned
Clinical Professor of Diseases of the Ear

William T. Bull, M.D. Resigned
Professor of Surgery

George M. Lefferts, M.D., M.Sc. Resigned
Clinical Professor of Laryngology and Rhinology

Edward A. MacDowell, Mus.Doc. Resigned
Professor of Music

Munroe Smith, A.M., J.U.D. Resigned
As Secretary of the Faculty of Political Science

Robert W. Taylor, M.D. Resigned
Clinical Professor of Genito-Urinary Diseases

George E. Woodberry, A.B. Resigned
Professor of Comparative Literature

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Instructors and Demonstrators

GEORGE PATTEN BIGGS, M.D. Resigned
Demonstrator in Pathological Anatomy

WILLIAM S. BRYANT, M.D. Term Expired
Instructor in Otology

GUY COCHRAN, M.D. (Aug. 31, 1903) Resigned
Assistant Demonstrator of Physiology

HOWARD D. COLLINS, M.D. Resigned
Assistant Demonstrator of Anatomy

WILLIAM COWEN, M.D. (Nov. 2) Resigned
Instructor in Otology

ELLSWORTH ELIOT, Jr., M.D. Resigned
Clinical Lecturer and Demonstrator in Surgery

RALPH W. LOBENSTINE, M.D. Resigned
Instructor in Obstetrics

Tutors

BEN HINMAN BISBEE, C.E. Term Expired
Tutor in Civil Engineering

ABBOT M. CREGIER, Mech. E. Resigned
Tutor in Drawing

FANNIE C. FRISBIE, A.B. Term Expired
Tutor in Physics

GEORGE A. GOODELL, A.M. Term Expired
Tutor in Chemistry

CLAYTON M. HAMILTON, A.M. Term Expired
Tutor in English

JOHN D. KAPS, LL.B. Term Expired
Tutor in Law

Lecturers

FRANK W. CHANDLER, Ph.D. Term Expired
Lecturer in Comparative Literature

FREDERICK W. J. HEUSER, A.M. Term Expired
Lecturer in the Germanic Languages and Literatures

HEINRICH O. HOFMAN, Ph.D. Term Expired
Lecturer in Metallurgy

FRANCIS C. HUNTINGTON, LL.B. Term Expired
Lecturer in Law

HUGO MÜNSTERBERG, Ph.D. Term Expired
Lecturer in Psychology

IDA HELEN OGILVIE, Ph.D. Term Expired
Lecturer in Geology

JOSEPH W. RICHARDS, Ph.D. Term Expired
Lecturer in Metallurgy

RALPH CURTIS RINGWALT, A.B. Term Expired
Lecturer in Public Speaking

HOWARD R. STEWART, E.M. Term Expired
Lecturer in Mining

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Assistants

FRANCES CAMPBELL BERKELEY, A.B.....Term Expired
Assistant in English

RICHARD WALTER BERLINER. (May 1).....Resigned
Assistant in Mechanical Engineering

ARTHUR S. CHITTENDEN, M.D.....Term Expired
Assistant in Pathology

KARL A. CONNELL, M.D.....Term Expired
Assistant in Normal Histology

ARTHUR S. CORWIN, M.D.....Term Expired
Assistant in Normal Histology

JOHN CRAWFORD, Jr., B.S.....Term Expired
Assistant in Mineralogy

CHARLES S. FORBES, A.M.....Term Expired
Assistant in Mathematics

HOMER D. HOUSE, B.S.....Term Expired
Assistant in Botany

HELEN ISHAM, A.B.....Term Expired
Assistant in Organic Chemistry

WILLIAM JONES, A.M.....Term Expired
Assistant in Anthropology

EMIL A. C. KEPPLER, A.M. (Feb. 1).....Resigned
Assistant in the Germanic Languages and Literatures

JOHN B. LUTHER, Ph.G.....Term Expired
Assistant in Analytical Chemistry

HENRY A. RUGER, A.B.....Resigned
Assistant in Psychology

THOMAS O'CONOR SLOANE, Jr., E.E.....Term Expired
Assistant in Electrical Engineering

PHILIP HYATT TARR, Ph.B.....Term Expired
Assistant in Physics

CHARLES P. WESTON, C.E., A.M Resigned
Assistant in Mechanics

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PROMOTIONS

To take effect July 1, 1904

Professors and Administrative Officers

NAME	FROM	TO	SUBJECT
HERBERT V. ABBOTT, A.B.	Instructor in	Adjunct Professor of	English
FREDERICK R. BAILEY, M.D.	Instructor in	Adjunct Professor of	Normal Histology
JOSEPH A. BLAKE, M.D.	Lecturer on	Professor of	Surgery
MARSTON T. BOGERT, Ph.B.	Adjunct Professor of	Professor of	Organic Chemistry
GEORGE E. BREWER, M.D. (Nov. 1)	Clinical Lecturer in	Professor of	Clinical Surgery
RUSSELL BURTON-OPITZ, M.D.	Instructor in	Adjunct Professor of	Physiology
GARY N. CALKINS, Ph.D.	Adjunct Professor of	Professor of	Invertebrate Zoölogy
HENRY E. CRAMPTON, Ph.D.	Adjunct Professor of	Professor of	Zoölogy
BASHFORD DEAN, Ph.D.	Adjunct Professor of	Professor of	Vertebrate Zoölogy
GEORGE H. FOX, M.D.	Clinical Professor of	Professor of	Dermatology
VIRGIL P. GIBNEY, M.D.	Clinical Professor of	Professor of	Orthopædic Surgery
JAMES R. HAYDEN, M.D.	Instructor in	Professor of	Genito-Urinary Diseases
WILLIAM A. HERVEY, A.M.	Instructor in	Adjunct Professor of	Germanic Languages and Literatures
EUGENE HODENPYL, M.D.	Instructor in	Adjunct Professor of	Pathological Anatomy
HAROLD JACOBY, Ph.D.	Adjunct Professor of	Professor of	Astronomy
ARNOLD H. KNAPP, M.D.	Lecturer in	Professor of	Ophthalmology
MAXIMILIAN K. KRESS, A.M.	Curator and Lecturer in	Adjunct Professor of	Architecture
FREDERIC S. LEE, Ph.D.	Adjunct Professor and Demonstrator of	Professor of	Physiology
LOUIS A. LOISEAUX, B.S.	Instructor in	Adjunct Professor of	Romance Languages and Literatures
LEA McI. LUQUER, Ph.D.	Instructor in	Adjunct Professor of	Mineralogy
LEONARD B. MCWHOOD, A.B.	Tutor in	Adjunct Professor of	Music
JOHN A. MACVANNEL, Ph.D.	Instructor in	Adjunct Professor of	History of Education
EDMUND H. MILLER, Ph.D.	Adjunct Professor of	Professor of	Analytical Chemistry
GEORGE N. OLCOTT, Ph.D.	Lecturer in	Adjunct Professor of	Latin
ROBERT PEELE, Jr., E.M.	Adjunct Professor of	Professor of	Mining
FREDERICK PETERSON, M.D. (Oct. 1)	Clinical Lecturer on	Clinical Professor of	Psychiatry
CHARLES L. POOR, Ph.D.	Lecturer in	Professor of	Astronomy
WILLIAM K. SIMPSON, M.D.	Instructor in	Professor of	Laryngology
JOEL E. SPINGARN, Ph.D.	Tutor in	Adjunct Professor of	Comparative Literature
BRADLEY STOUGHTON, Ph.B.	Instructor in	Adjunct Professor of	Metallurgy
JOHN S. THACHER, M.D. (Nov. 1)	Clinical Lecturer in	Professor of	Clinical Medicine
RUDOLF TOMBO, Jr., Ph.D.	Instructor in	Adjunct Professor of	Germanic Languages and Literatures
HERMANN T. VULTÉ, Ph.D.	Instructor in Chemistry	Adjunct Professor of Domestic Science	
FRANCIS CARTER WOOD, M.D.	Instructor in	Adjunct Professor of	Clinical Pathology

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Clinical Lecturer

LUCIUS W. HOTCHKISS, M.D.	Instructor in	Clinical Lecturer and Instructor in	Surgery

Instructors and Demonstrators

HAVEN EMERSON, M.D.	Assistant Demonstrator of	Demonstrator of	Physiology
MYRON S. FALK, C.E. (Sept. 29)	Tutor in	Instructor in	Civil Engineering
JAMES F. MCCLELLAND, E.M.	Lecturer in	Instructor in	Mining
CHARLES H. PECK, M.D.	Assistant Instructor in	Instructor in	Surgery
MARIE REIMER, Ph.D.	Lecturer in	Instructor in	Chemistry
OLIVER S. STRONG, Ph.D.	Tutor in Comparative Neurology and Assistant in Normal Histology of the Nervous System	Instructor in Normal Histology	
AUGUSTUS B. WADSWORTH, M.D.	Assistant in	Instructor in	Bacteriology

Tutors

ELEANOR KELLER, A.B.	Lecturer in	Tutor in	Chemistry
FRANK S. MEARA, M.D.	Assistant in Materia Medica and Therapeutics	Tutor in Pediatrics	
WILLIAM P. MONTAGUE, Ph.D.	Lecturer in	Tutor in	Philosophy
HENRY S. PATTERSON, M.D.	Assistant in Clinical Pathology	Tutor in Materia Medica and Therapeutics and Assistant in Clinical Pathology	
WILLIAM H. YATES	Assistant in	Tutor in	Civil Engineering

Lecturers

LOUISE R. LOOMIS, A.M.	Assistant in	Lecturer in	History
CLARK WISSLER, Ph.D.	Assistant in	Lecturer in	Anthropology

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CHANGES OF TITLE

To take effect July 1, 1904

Professors

NAME	FROM	TO
EDWIN B. CRAGIN, M.D.	Professor of Obstetrics	Professor of Obstetrics and Gynecology
WILLIAM A. DUNNING, Ph.D.	Professor of History	Professor of History and Political Philosophy
L. EMMETT HOLT, M.D.	Professor of the Diseases of Children	Carpentier Professor of Pediatrics

Instructors

RICHARD H. CUNNINGHAM, M.D.	Instructor in Neurology	Instructor in Neurology and in Electro - Physiology
LINNÆUS E. LA FETRA, M.D.	Instructor in the Diseases of Children	Instructor in Pediatrics
ADRIAN VAN S. LAMBERT, M.D.	Assistant Demonstrator of Anatomy	Instructor in Surgery
EUGENE H. POOL, M.D.	Assistant Demonstrator of Anatomy	Instructor in Surgery

Lecturers

FRANCIS X. CARMODY, A.B., LL.B.	Lecturer in Elocution	Lecturer in Elocution and Public Speaking
GEORGE P. KRAPP, Ph.D.	Tutor in English	Lecturer in English
JAMES H. MCGREGOR, Ph.D.	Instructor in Zoology	Lecturer in Vertebrate Zoölogy

APPOINTMENTS

To take effect July 1, 1904

Professors and Administrative Officers

NAME	OFFICE
GORHAM BACON, M.D.	Professor of Otology
JOHN DEWEY, Ph.D.	Professor of Philosophy
ARTHUR WESLEY DOW	Professor of Fine Arts in Teachers College
JEFFERSON B. FLETCHER, A.M.	Professor of Comparative Literature

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NAME	OFFICE
GEORGE S. FULLERTON, Ph.D.....	Professor of Philosophy
SAMUEL W. LAMBERT, M.D. (Nov. 1)	Professor of Applied Therapeutics
THOMAS HUNT MORGAN, Ph.D....	Professor of Experimental Zoölogy
WILLIAM ALLAN NEILSON, Ph.D..	Adjunct Professor of English
HARRY MCMAHON PAINTER, M.D..	Professor of Clinical Obstetrics
CORNELIUS RÜBNER.....	Professor of Music
HENRY ROGERS SEAGER, Ph.D....	As Secretary of the Faculty of Political Science

Clinical Lecturer

JOHN B. WALKER, M.D.....	Clinical Lecturer in Surgery

Instructors and Demonstrators

JAMES C. AYER, M.D.....	Assistant Instructor in Operative Surgery
WILLIAM CAMPBELL, Ph.D.....	Instructor in Metallurgy
GEORGE S. DIXON, M.D.....	Instructor in Otology
T. STUART HART, M.D.....	Instructor in Physical Diagnosis
WILLIAM P. HEALY, M.D.....	Instructor in Gynecology
JOHN HOWLAND, M.D.....	Instructor in Contagious Diseases
HARRY M. KEATOR, M.D.....	Assistant Demonstrator of Physiology
JAMES A. MILLER, M.D.....	Instructor in Physical Diagnosis
CHARLES I. PROBEN, M.D.....	Instructor in Gynecology
CHARLES R. L. PUTNAM, M.D.....	Assistant Demonstrator of Anatomy
GEORGE H. RYDER, M.D.....	Instructor in Obstetrics
HERMANN VON W. SCHULTE, M.D.	Assistant Demonstrator of Anatomy
EDWARD A. SPITZKA, M.D.....	Assistant Demonstrator of Anatomy
FRANKLIN M. STEPHENS, M.D.....	Instructor in Otology
SAMUEL W. THURBER, M.D.....	Instructor in Laryngology
OLIVER S. TONKS, Ph.D.....	Instructor in Greek
PERCY TURNURE, M.D.....	Instructor in Minor Surgery
JAMES R. WHITING, M.D.....	Instructor in Genito-Urinary Diseases

Tutors

HARRIET BROOKS, A.B.....	Tutor in Physics
S. T. LAUBACH, B.S.....	Tutor in Mechanical Engineering
EDWARD R. POSNER, M.D.....	Tutor in Physiological Chemistry
KENNETH C. M. SILLS, A.M.....	Tutor in English
WILLIAM R. WILLIAMS, M.D.....	Tutor in Materia Medica and Therapeutics

Lecturers

A. BANDELIER, Ph.D.....	Lecturer in American Archæology
CHARLES A. BEARD, A.M.....	Lecturer in History
THADDEUS D. KENNESON, LL.B...	Lecturer in Law
BERTHOLD LAUFER, Ph.D.....	Lecturer in Anthropology
LOUISE R. LOOMIS, A.M. (Jan. 1).	Assistant in History
DICKINSON S. MILLER, Ph.D.....	Lecturer in Philosophy
HUGO MÜNSTERBERG, Ph.D.....	Lecturer in Psychology
FREDERICK C. OSTRANDER, A.B...	Lecturer in the Romance Languages and Literatures
ERNST D. RICHARD, Ph.D. (Oct. 5)	Lecturer in German
VLADIMIR G. SIMKHOVITCH, Ph.D.	Lecturer in Russian History

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Assistants

NAME	OFFICE
CHARLES EARLE ADAMS.....	Assistant in the Gymnasium
MARGARET E. BALL, A.M.....	Assistant in English
WILLIAM N. BERG, B.S.....	Assistant in Physiological Chemistry
DINO BIGONGIARI, A.B.....	Assistant in Latin
FRANK G. BRUNER, A.B.....	Assistant in Psychology
IRA D. CARDIFF, B.S.....	Assistant in Botany
SALISBURY MARCUS DAY, E.E....	Assistant in Electrical Engineering
RICHARD F. DEIMEL, B.S., A.M...	Assistant in Mechanics
MILTON J. FALK, B.S.....	Assistant in Analytical Chemistry
G. C. FRACKER, A.B.....	Assistant in Psychology
HENRY HAROLD HIGBIE, E.E.....	Assistant in Mechanical Engineering
JOHN LOUIS KIND, A.M.....	Assistant in the Germanic Languages and Literatures
FLOYD J. METZGER, Ph.D.....	Assistant in General Chemistry
GUSTAVE M. MEYER, Sc.D.....	Assistant in Physiological Chemistry
LOUIS G. MICHAEL, B.S.....	Assistant in Mineralogy
WALTER A. MITCHELL.....	Assistant in Physics
AUSTEN FOX RIGGS, M.D.....	Assistant in Pathology
JULIAN C. SMALLWOOD, Mech.E...	Assistant in Mechanical Engineering
CLIFFORD T. SWART, Mech.E.....	Assistant in Mechanical Engineering
CAMILLE A. TOUSSAINT, A.M.....	Assistant in Mathematics
HERBERT B. WILCOX, M.D.....	Assistant in Clinical Pathology

Emeritus Professors

WILLIAM T. BULL, M.D.....	Emeritus Professor of Surgery
GEORGE M. LEFFERTS, M.D.....	Emeritus Professor of Laryngology

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APPENDIX 2

PUBLIC LECTURES

UNDER THE AUSPICES OF THE UNIVERSITY

AT THE UNIVERSITY

The National Awakening of the Slavs in the Nineteenth Century. Stephen Panaretoff, Professor of the Slavic Languages and Literatures in Robert College, Constantinople.

November 11. Bulgarians, Servians, Croats, Slovences; historical sketch.

" 12. The Bohemians, Poles, and Slovaks. German influence in Bohemia; the Hussite movement; loss of independence; the national awakening; the downfall and partition of Poland; Polish Messianism. The Slovak struggle for self-preservation.

" 13. The Russians. Russia previous to Peter the Great; his reforms; political growth of Russia. The Russian awakening; liberal and reactionary tendencies; the present political unrest.

" 14. Panslavism; Pan-Russianism. Democratic spirit of the Slavs. Probable effect of the Slav revival.

" 19. Spiritual Experience and Theological Science—a Reconciliation; address by Dr. Charles C. Hall, President of the Union Theological Seminary.

Italian Politics and Literature. Professor Angelo de Gubernatis of the University of Rome.

March 9. La Democratie italienne.

" 10. Dante et l'Orient.

21. Exercises in Commemoration of the One Hundredth Anniversary of the Promulgation of the Civil Code in France; addresses by Professor George W. Kirchwey, Professor Munroe Smith, and Professor Adolphe Cohn.

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LECTURES ON FINE ARTS

PLASTIC ARTS

First Series

January 4. Architecture and Science. Alfred D. F. Hamlin, A.M.
" 11. Architecture and Religion. Alfred D. F. Hamlin, A.M.
" 18. Modern American Sculpture. George S. Kellogg.
" 25. Florentine Painters of the Early Renaissance. George Kriehn, Ph.D.

Second Series

The Acropolis of Athens. James Rignale Wheeler, Ph.D.

February 1. General History of the Acropolis; Earliest Remains.
" 8. The Buildings before the Persian Wars, and the pre-Persian Sculpture: Pausanias' Description.
" 15. The Propylæa and the Temple of Athena Nike.
" 22. The Parthenon.
" 29. The Parthenon.
March 7. The Erechtheum.

Third Series

Conventions in Art. Alfred Vance Churchill, A.M.

March 14. Conventions in Painting.
" 21. Conventions in Sculpture.

The Renaissance of Art in Italy. Edward Robinson Smith, A.B.

March 28. The Primitives.
April 4. The Classicists.
" 11. Michael Angelo.
" 18. The Baroque Style.

POETRY AND BELLES-LETTRES

First Series

Spanish Ideals in Drama and Romance. Frank Wadleigh Chandler, Ph.D.

January 6. Spanish Ideals; their historical source, their expression in chivalric and pastoral romance.
" 13. The Spanish Decadence; its ideals affirmed in the drama, satirized in the romances of roguery.
" 20. Ideals of Calderon; the drama of race, creed, and time.
" 27. Ideals of Cervantes; the national and universal romances.

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Second Series

February 3. The Poetry of the French Renaissance: Ronsard. Curtis Hidden Page, Ph.D.

Love in the Poetry of the Renaissance. Joel Elias Spingarn, Ph.D.

February 10. Theorists: The Formal Treatise.
" 17. Idealists: the Petrarchistic Lyric.
" 24. Realists: Chronicle and Novella.

LAW

November 6. The Expansion of the Common Law. Sir Frederick Pollock.
March 23. The Corporation Lawyer. Julien T. Davies.
April 6. The Admiralty Bar. Harrington Putnam.
" 13. Legal Journalism. Wilbur Larremore.
" 20. The Office Lawyer. Edward M. Shepard.
" 27. The General Practitioner. William B. Hornblower.
May 4. The Conduct of Cases from the Point of View of the Bench. Judge E. Henry Lacombe.
" 11. The Trial Lawyer. Austen G. Fox.

AT COOPER UNION

The Problem of Monopoly. John Bates Clark, Ph.D., LL.D.

February 1. The Growth of Corporations.
" 8. Natural Checks on the Power of Corporations.
" 15. Anti-Trust Laws.
" 22. Agrarian Movements.
" 29. Organized Labor and Monopolies.
March 7. Municipal Activities.
" 14. Railroad Problems.
" 21. Governmental Monopolies.

UNDER THE AUSPICES OF THE ACADEMY OF POLITICAL SCIENCE

THE PRACTICAL PROBLEMS OF MUNICIPAL ADMINISTRATION

February 26. The Dock Department (illustrated). Hon. McDougall Hawkes
March 4. The Street Cleaning Department (illustrated). Hon. James McG. Woodbury.
" 11. The Police Department. Gen. Francis V. Greene.

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March 18. The Fire Department. Hon. Thomas Sturgis.
" 25. The Department of Education. Hon. C. C. Burlingham.
April 8. The Tenement House Department. Hon. Robt. W. DeForest.
" 15. The Health Department (illustrated). Hon. Ernst Lederle.
" 22. Bellevue and Allied Hospitals. Hon. John S. Brannan.
" 29. The Department of Charities. Hon. Homer Folks.

UNDER DEPARTMENTAL AUSPICES

At the University

Department of Germanic Languages

DEUTSCHE KULTURGESCHICHTE. Dr. Ernst Richard.

February 3. I.—Einleitung: Das Gebiet der Kulturgeschichte.
" 10. II.—Völkerwanderung. Christentum. Anfänge deutschen Staatswesens.
" 17. III.—Das heilige römische Reich deutscher Nation.
" 24. IV.—Rittertum. Kreuzzüge. Herrschaft der Landesfürsten.
March 2. V.—Blütezeit des deutschen Bürgertums.
" 9. VI.—Das Jahrhundert der Kirchentrennung.
" 16. VII.—Der dreissigjährige Krieg und seine Folgen.
" 23. VIII.—Das Zeitalter des Absolutismus und der Herrschaft französischen Einflusses.
" 30. IX.—Das heroische Zeitalter des deutschen Geisteslebens.
April 6. X.—Festigung und Entwicklung der deutschen Kultur als Kultur des Gesammtvolkes. Ihre Stellung im europäisch-amerikanischen Kultursystem.

Department of Indo-Iranian Languages

PERSIA PAST AND PRESENT. A. V. Williams Jackson, Ph.D., L.H.D.

November 9. Persia, the Land and the People.
" 16. The Ancient Persian Kings, their Inscriptions, Palaces, and Tombs.
" 23. The Poetry of Persia.
" 30. From the Caspian to Samarkand.

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INDIA, ITS HISTORY, LITERATURE, AND CIVILIZATION

January 5. A Sketch of the History of India. A. V. Williams Jackson, Ph.D., L.H.D.
" 12. The Hindu Drama. G. Payn Quackenbos, A.M.
" 19. Tales and Fables of India. George C. O. Haas, A.M.
" 26. Cities of India and Ceylon. A. V. Williams Jackson, Ph.D., L.H.D.

Department of Philosophy and Psychology

LECTURES ON THE FUNDAMENTAL PROBLEMS OF PHILOSOPHY

September 28. Introductory Lecture. President Butler.
" 29– The Doctrine of Reality (10 lectures). Professor
November 2. Ormond of Princeton University.
" 9– The Problem of Knowledge (4 lectures). Professor
" 17. Rogers of Butler College.
" 23– Consciousness (6 lectures). Henry Rutgers Mar-
December 8. shall.
" 14– The Logic of Utilitarianism (4 lectures). Professor
January 5. Albee of Cornell University.
" 11– The Individual (4 lectures). Brother Chrysostom of
" 19. Manhattan College.
February 1– Scientific Concepts: Comparative Study, General Sur-
" 15. vey, Application of the Survey, and Philosophical Considerations (5 lectures). Josiah Royce, Ph.D.. LL.D., Professor of Philosophy, Harvard University.
" 16– Controversies in Modern Psychology (7 lectures),
March 8. Hugo Münsterberg, Ph.D., Professor of Psychology, Harvard University.
" 14– What Do We Mean by Knowledge? (6 lectures). John
" 29. Dewey, Ph.D., Professor of Philosophy, University of Chicago.
April 5– Psychology of the Religious Experience (5 lectures).
" 19. George Trumbull Ladd, D.D., LL.D., Professor of Philosophy, Yale University.
May 9. The General Problem and Subdivisions of Logic.
" 10. Some Logical Principles. Wilmon H. Sheldon, Ph.D.
" 16. The Characteristics of the Present Age.
" 17. The Future Course of Thought. A. C. Armstrong, Ph.D., Professor of Philosophy, Wesleyan University.

February 12. The Kant Centenary, Commemorative Address. Felix Adler, Ph.D.

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Department of Romance Languages

PUBLIC COURSE IN FRENCH LITERATURE

THE FRENCH DRAMA OF THE 17TH CENTURY. Professor Adolphe Cohn.

December	5.	The Origins of French Tragedy.
"	12.	The French Drama before 1636.
"	19.	The Triumph of Corneille; Significance of "Le Cid."
January	9.	The Art of Corneille.
"	16.	Tragi-Comedy and the decay of Corneille.
February	6.	French Comedy before Molière.
"	13.	The Formation of Molière's Genius.
"	20.	A New Division of Molière's Plays.
"	29.	Molière as an Amuser.
March	5.	Molière as a Fighter.
"	12.	"Le Misanthrope," or the Culmination of Molière's Art
"	19.	The Advent of Greek Influence with Racine.
"	26.	Racine's Love Tragedies.
April	9.	"Athalie" as the Introducer of a New Form of Drama.
"	16.	Conclusion: The Influence of the French Classical Drama on the Development of Dramatic Literature.

LES HOMMES DE LETTRES ET LA POLITIQUE EN FRANCE. Professor Adolphe Cohn.

November	5.	I.—Voltaire diplomate.
December	10.	II.—Beaumarchais.
January	7.	III.—Madame de Staël.
"	14.	IV.—Chateaubriand.
February	4.	V.—Guizot.
"	11.	VI.—Thiers et la monarchie parlementaire.
"	18.	VII.—Thiers et la République.
March	3.	VIII.—Béranger.
"	17.	IX.—Auguste Barbier.
"	24.	X.—Lamartine.
April	7.	XI.—Victor Hugo.
"	14.	XII.—Louis Blanc.
"	21.	XIII.—Les Proscrits de 1851.
"	28.	—XIV.—Les Hommes de Lettres et l'Affaire Dreyfus.

OTHER LECTURES

November 12. Comment j'aime à lire Victor Hugo. Robert L. Dupouey, Agrégé de l'université de France, Travelling Fellow of the French Ministry of Public Instruction.

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November 19, Les Grandes Abbayes Romanes (I. and II.). Professor André Michel, Conservateur au Musée du Louvre.
December 3.
" 17. L'année 1903 en France. Professor Adolphe Cohn.
February 25. La Mer et les écrivains français. Henry Bargy.
May 16. Le Pape Léon XIII. et la République Française. Monsieur Anatole Leroy-Beaulieu, Official Lecturer of the Federation of the Alliance Française.

Department of Physics

May 13. Radium and Its Evidence as to the Structure of Matter. William Hallock, Ph.D.

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APPENDIX 3

COMMITTEE ON EMPLOYMENT FOR STUDENTS

Report of the Secretary

JUNE 1, 1903, TO MAY 31, 1904

The year just closed was the tenth of the Committee's work. During its existence the recorded earnings of those students applying for aid have risen from $2411 in 1895 to $74,021.17 in 1904. In the first year the applicants numbered 67. At the present time there are 508. The average amount earned by each student has increased during these ten years from $35.98 to $145.71. This great development has taken place largely in the last three years. For the year 1901–02 the earnings aggregated $15,664.18; and in 1902–03, $57,776.57. The present report shows an increase of $16,244.60 over 1902–03. Of this advance $10,797.66 were procured directly through the aid of the Committee, and $5446.94 on the students' own initiative. The total amount earned by the students with the aid of the Committee was $27,452.10; without its aid, $46,569.07.

Of the 508 applicants for employment 360 returned reports of their efforts; about 40 reported that they had earned nothing, while 37 made no report of specific earnings. 184 students secured employment directly through the aid of the Committee.

Requests for student assistants to the number of 293 were received, as against 407 last year. Of these calls 181 resulted in positions, as against 231 in 1902–03. The average value of each place, however, increased from $72.09 to $151.66.

For the summer of 1904 situations have been secured for about 60 students. In addition to these, about 90 applicants were recommended to the Board of Education for positions in the Summer Vacation Schools and Playgrounds.

The earnings of the students are tabulated below:

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SUMMER VACATION OF 1903

EARNINGS OF 192 STUDENTS

BY OCCUPATION

Teaching and Tutoring:		
Through the Committee	$ 5,036.75	
Independently	7,647.85	
		$12,684.60
Clerical Work:		
Through the Committee	2,828.76	
Independently	2,251.61	
		5,080.37
Technical Work:		
Through the Committee	85.	
Independently	2,028.50	
		2,113.50
Miscellaneous Work:		
Through the Committee	3,475.94	
Independently	8,047.28	
		11,523.22
Totals:		
Through the Committee	11,426.45	
Independently	19,975.24	
		31,401.69

BY SCHOOLS

College:	
58 students earned	$ 6,963.15
Average per each student	120.39
Schools of Applied Science:	
21 students earned	2,914.47
Average per each student	138.78
Medical School:	
21 students earned	3,454.
Average per each student	164.47
Law School:	
48 students earned	11,122.29
Average per each student	231.71
Graduate Schools:	
44 students earned	6,927.78
Average per each student	157.44
Summary:	
192 students earned	31,401.69
Average per each student	163.54

ACADEMIC YEAR, 1903–04

EARNINGS OF 283 STUDENTS

BY OCCUPATION

Teaching and Tutoring:		
Through the Committee	$10,724.03	
Independently	19,616.53	
		$30,340.56
Clerical Work:		
Through the Committee	981.69	
Independently	1,658.98	
		2,640.67
Technical Work:		
Through the Committee	298.68	
Independently	930.99	
		1,229.67
Miscellaneous Work:		
Through the Committee	4,021.25	
Independently	4,387.33	
		8,408.58
Totals:		
Through the Committee	16,025.65	
Independently	26,593.83	
		42,619.48

BY SCHOOLS

College:	
55 students earned	$ 5,406.09
Average earnings of each student	98.29
Schools of Applied Science:	
48 students earned	3,715.49
Average earnings of each student	77.40
Medical School:	
27 students earned	1,814.25
Average earnings of each student	67.14
Law School:	
68 students earned	14,616.52
Average earnings of each student	214.94
Graduate Schools:	
74 students earned	15,670.92
Average earnings of each student	211.76
Women Students (not included above):	
11 students earned	1,396.21
Average earnings of each student	129.12
283 students earned	42,619.48
Average earnings of each student	150.59

Totals for fiscal year 1903–04:

Through the Committee	$27,452.10
Independently	46,569.07
	$74,021.17

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The ways in which the students earned money were as multifarious as the abilities of the students themselves. The eighty-five different occupations reported in the past ten years vary all the way from bell-boy, driver, laborer, conductor, clerk, stenographer, electrician, and draughtsman to teacher, lay-reader, and sub-editor. The most remunerative were tutoring, life-insurance soliciting, directorship of a gymnasium, and newspaper reporting. A student who is thoroughly master of almost anything will, sooner or later, get some financial return from his superior equipment, provided always that his academic duties leave him free for several hours daily.

The new systematic efforts to secure employment were largely successful. These concerned workers for the political parties, clerks in shops at Christmas time, salesmen in stores on Saturdays, and clerks in banks for the summer. The circular letter to physicians and schoolmasters brought satisfactory responses. The letters to steamboat and railway companies were only partially successful. The annual letter to summer resort hotels resulted in a few more positions than were secured last year. The results of the recommendation of applicants to the Board of Education are not yet known. In looking up new opportunities for the students, it has sometimes been more difficult to find the right man than the position.

In this connection it might be said that the work of the Committee in behalf of the women students cannot be considered successful. Although care is taken to let employers know that women assistants can be obtained through the Committee, few or no requests for them are received. This fact may be due in part to a general idea of the public that the Committee aids only the men, and that women assistants may be obtained only through Barnard and Teachers Colleges.

The present purpose of the Committee, which is limited to the securing of employment for worthy students, does not seem, in itself, completely to serve the needs of the students whom it is designed to aid. The student during his residence at the University is under a continual expense. Employ-

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ment, on the other hand, is precarious; and the student may not be able to obtain it, or the Committee for him, at just the time when he most needs assistance. If financial aid is not forthcoming at the critical moment, a capable student may be forced to give up definitely his collegiate course. This, in fact, did happen in several cases last year. Under these circumstances it would seem that a loan fund, the income of which would be available in such cases as the above, would supplement the present work of the Committee by fulfilling a real need which the Committee cannot now serve.

For the information of prospective students a comparative statement of students' expenses and average earnings is given below. These figures are based on the students' own reports:

School	Expenses, Low	Expenses, Average	Average Earnings, Academic Year	Average Earnings, Fiscal Year
College.....	$456	$653	$ 98.29	$179.55
Applied Science...	674	822	77.40	129.99
Law.....	472	609	67.19	154.94
Medicine.....	610	722	214.94	310.10
Graduate.....	481	641	211.76	272.27

The conclusion drawn from the experience of 1902–03 was again demonstrated last year. The most important factor in the work of the Committee is the student himself. If he is what he ought to be, if he is thoroughly competent, if he is responsible and self-reliant, if he is presentable and tactful, his success at earning a fair portion of his expenses will be a matter of course. Here, as everywhere else, the man that is deficient or merely mediocre cannot hope to meet with any great degree of success. The recommending of inferior applicants would wreck the work of the Committee, and whatever success we have met with thus far has been due in large measure to recommending that man who, in the opinion of the Committee, will do the work most efficiently. Where there are so many applicants for positions—and it must be remembered that there are now on the list of applicants more students than are in the College proper, and more than the entire student body of many of the well-known colleges of

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the country—under these circumstances, those seeking work should understand that an application for employment is not a warrant that a position will be secured. The Committee, with all conscientiousness, does what it can from the point of view of what will best advance the work of the Committee and of the University.

Respectfully,

REUBEN A. MEYERS,
Secretary of the Committee.

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APPENDIX 4

EARL HALL

To the President of Columbia University
in the City of New York,

SIR:

The Advisory Committee of Earl Hall begs leave to report a successful year, although the prolonged and serious illness of the Secretary added greatly to the perplexities of administration. The excellent work of all substitutes, both those who were paid and those who so generously volunteered, could not quite make good the loss of at least three months of secretarial supervision: yet we were able to hold the advanced ground occupied last year.

Mr. Howard Richards, Jr., our present Secretary, withdraws at the close of the year to enter upon mission-teaching in China: a work and a field to which he carries the best wishes of this Committee.

The statement of meetings, etc., made later herein, clearly shows how keenly the students appreciate the convenience and the comfort afforded by the Hall. It is scarcely too much to say that without the Hall it would be practically impossible for our students to use or enjoy the mid-day rest-hour now so wisely provided. But already it has become evident that Earl Hall is too small to accommodate all student organizations, and that it will not be so very long before the religious and philanthropic associations alone (for which the Hall was originally and primarily designed) will practically absorb the entire building. Already we feel obliged to turn the smoking-room into a committee or directors' room—fortunately there is a large and not unattractive student smoking-room in University Hall; and to drop out those forms of recreation

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and amusement which tend to disturb others not participating. At certain hours of certain days, every room and every seat have been occupied, and organizations have been obliged to meet at inconvenient hours in order to meet at all. Even the large auditorium has more than once overflowed, until the foyer and upper stairway were uncomfortably crowded.

The increasing demands upon the Hall, the larger number of students living near the University, the prospective dormitories, the greater interest and more active participation of our students in the religious and philanthropic life of the city, and the generally increased opportunities for usefulness and influence, have added much to the appreciation by us all of the place and value of the Earl Hall Secretaryship. It is no light task to provide for all these student activities in a way which shall be both helpful and satisfactory, and to maintain stimulating and uplifting personal relations. The possible influence of the right man in this position is very great—even extraordinary. This seems especially true when one realizes the strong and inspiring personal relations which may be established, even in these days of a constant tendency in university life to minimize personal relations. The Advisory Committee, therefore, is peculiarly fortunate in being able to report that for the coming academic year the Secretary will be Mr. Gilbert A. Beaver, who for the last four years has been unusually successful (as one of the secretarial force of the Y. M. C. A. International Committee) in charge of all Association work among college men in this city. Mr. Beaver was graduated from the Pennsylvania State College in 1890, after an extra year's work in order that he might continue his Greek and take some advanced work in history. For several years after graduation he was College Secretary of the State Committee of the Y. M. C. A. for Pennsylvania. When Mr. John R. Mott made his first tour of the world in the interest of student organizations, Mr. Beaver was called to take his place as College Secretary for the United States, under the general supervision of the International Committee—the call being extended at Mr. Mott's request, because of the recognition of Mr. Beaver's unusual strength with college men and in college circles.

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Since that, Mr. Beaver has been almost continually on the secretarial force of the International Committee, always dealing with the interests of collegians. He is a son of Hon. James L. Beaver, one-time Governor of Pennsylvania and now Judge of the Supreme Court of that State. He is warmly endorsed for the position of Secretary of Earl Hall by Mr. Cleveland H. Dodge and Mr. William Fellowes Morgan, both of whom know him well; he is a warm personal friend of Mr. Marcellus Dodge; for the last two years he has had much to do with the work of Earl Hall in his capacity as Secretary of College Work in this city; and since the illness of Secretary Richards he has been on the ground almost daily in consultation with the Chairman of the Advisory Committee. Not only his general experience, therefore, but the information which he already possesses of the situation at Columbia, make him a peculiarly desirable choice.

At a conference held at the residence of (then) President Low, soon after the gift of Earl Hall was announced, when the entire question of Earl Hall and its use and maintenance was under discussion, it was agreed to undertake the following division of necessary expenditures: the salary of the Secretary (then set at $2000) to be carried by the alumni of Columbia; the salaries and expenses of the Christian Association and the incidental and current expenses of the Hall, to be carried by the officers and students; the expense of heating, lighting, water, janitor service, repairs, and general maintenance of the building and equipment, to be carried by the University. Our experience shows this to have been a very equal division of the burden. For the coming year the Advisory Committee has undertaken to somewhat increase its expenditure by paying for part time of an Assistant Secretary, and hopes to receive through its Finance Committee (Mr. Ewing, Mr. Chrystie, Mr. Morgan, Mr. Sage, and Mr. Satterlee) not less than $2250.

As far as our books can show the uses of the Hall, the following is the record for the academic year:

Religious organizations: 5, with 18 divisions or lines of work, and weekly meetings.

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Literary organizations: 12, with weekly meetings (generally)
Scientific Societies: 2, with 12 meetings
Miscellaneous organizations: 5, about 100 meetings
Social organizations: 4, about 30 meetings
Occasional meetings (Debating Union, class meetings, athletic meetings, mass meetings, special committees, etc.), 122 meetings
Special occasions: President's Reception to newly appointed professors, at the opening of the year; University Teas, each Tuesday afternoon, from — to —, in January, February, and March, with an average attendance of 135; opening exercises, 150th anniversary of Columbia, attendance 300; memorial services for Frederick W. Holls, attendance about 200; Convention of the colleges and preparatory schools of the Middle States and Maryland, in November, 2 days, with an attendance of about 400.

The library and reading-room have been used by about 250 students daily. All the tables and sets provided for games and amusements (chess, checkers, dominoes, ping pong) have been in use daily.

The average attendance upon all meetings and for all purposes has been about 600 daily.

It must be remembered that all these meetings have been held on day-and-hour schedules, without interference or friction of any kind, in well-furnished, well-lighted, well-heated rooms; and that in addition to this the large reading-room and writing-room and the still larger general reception room or foyer have been available at all times for social and other purposes. Graduates of Columbia who will recall the difficulties experienced in earlier days, and even in days not so very remote, in finding any place whatever in which class meetings could be held undisturbed, or any committee could hold unbroken and satisfactory meetings, will easily understand the keen appreciation of Earl Hall privileges experienced and expressed by the great mass of our students.

It should be kept constantly in mind by all interested in the welfare of this institution, that even with the proposed

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dormitories, Columbia, because building on true University lines, with an ever increasing body of graduate students and under the limitations (as well as the advantages) of a metropolitan location, must put forth unusually intelligent and effective effort to secure and maintain and strengthen that *esprit du corps*, that recognition of common interest, and that spirit of good-fellowship which are such marked and desirable features of college and University life. Earl Hall is surely the centre, the vantage ground, the fulcrum, for this effort: and therefore deserves the most generous and hearty support of the University, its officers, its students, and its graduates.

Respectfully,

JAMES H. CANFIELD.

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APPENDIX 5

GIFTS AND BEQUESTS 1903–04

(1)				
Gifts and Bequests for the Creation of Trust Funds:				
Richard Butler Scholarship Fund (see also Section 4)	Mrs. Richard Butler		$5,000 00	
Carpentier Professorship of Pediatrics	H. W. Carpentier		60,000 00	
Edward A. Darling Prize in Mechanical Engineering (see also Section 4)	Estate of E. A. Darling		1,000 00	
C. H. Gottsberger Scholarship Fund (see also Section 4)	Estate of Ellen Josephine Banker, to establish a scholarship in memory of her brother		9,500 00	
School of Journalism (see also Section 2)	Joseph Pulitzer		1,000,000 00	
To Complete Endowment of Sloane Maternity Hospital	Mr. and Mrs. William D. Sloane		225,000 00	
Robert Noxon Toppan Prize (see also Section 4)	Mrs. Sarah M. Toppan		4,000 00	
				$1,304,500 00
(2)				
For Buildings and Grounds:				
For a Drinking Fountain in the Library Building	Estate of E. A. Darling		$1,000 00	
On account of the Erection and Equipment of Hartley Hall	Mrs. Helen Hartley Jenkins and Mr. Marcellus Hartley Dodge		5,912 50	
On account of Gift for School of Mines Building	Adolph Lewisohn		2,700 00	
Trees and Shrubs	B. Aymar Sands	$100 00		
" " "	F. A. Schermerhorn	100 00		
			200 00	
For School of Journalism	Joseph Pulitzer (see Section 1)			
Fund for Purchase of South Field: James Speyer, $25,000; Isaac N. Seligman, $10,000; Mrs. Henry Villard, $5,000; George Foster Peabody, $5,000; from the Class of '83, $2,110; William Mitchell, '68, $1,000; "An Old New Yorker," $1,000; various donors, $5,037			54,147 00	
				63,959 50
Carried forward				$1,368,459 50

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Brought forward				$1,368,459 50
(3)				
For Designated Purposes				
Library:				
Interest Fund	Seth Low			5,000 00
Special Fund for the Purchase of Books, 1903–04	Anonymous		$10,000 00	
For Purchase of Books on Maritime and International Law	William G. Low		250 00	
For Purchase of Books	Through Prof. Adler		125 00	
For the James Loeb Fund	James Loeb		150 00	
				10,525 00
(4)				
Fellowships, Scholarships, and Prizes:				
Richard Butler Scholarship	Mrs. Richard Butler (see Section 1)			
Edward A. Darling Prize in Mechanical Engineering	Estate of E. A. Darling (see Section 1)			
C. H. Gottsberger Scholarship	Estate of Ellen Josephine Banker (see Section 1)			
Lawrence Annual Scholarship	Benjamin B. Lawrence		$200 00	
Robert Noxon Toppan Prize	Mrs. Sarah M. Toppan (see Section 1)			
For Alumni Scholarships, College of Physicians and Surgeons	Alumni Association of the College of Physicians and Surgeons		1,500 00	
For John D. Jones Scholarship	Wawepex Society		200 00	
				1,900 00
(5)				
Departmental				
Anthropology:				
For Salaries, 1904–05	Charles P. Bowditch		$100 00	
For Salaries, 1904–05	James Loeb		50 00	
For Salaries, 1904–05	Julius Sachs		85 00	
For Establishment of Assistantship, 1903–04	Trustees of Hemenway Fund		500 00	
				735 00
Architecture:				
For Salaries, 1903–04	Anonymous			3,500 00
Carried forward				$1,390,119 50

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Brought forward				$1,390,119 50
Astronomy:				
To be added to the Catherine Wolfe Bruce Fund	Rutherfurd Stuyvesant		$500 00	
To be used for continuation of measures and reductions of Rutherfurd photographs	Rutherfurd Stuyvesant		500 00	
Interest on Deposits, Bruce Fund			334 92	
				1,334 92
Botany:				
For departmental uses	Anonymous			10 00
French:				
For Lectures	Through Prof. Cohn			237 25
Geology:				
For departmental uses	Through Prof. Kemp			200 00
German:				
For Maintenance of a Lectureship	Various donors			1,025 00
Mechanical Engineering:				
For Equipment	A. W. Colwell			100 00
Mining:				
Special Fund for Equipment	Various donors			852 11
Mining and Metallurgy:				
For Special Fund	C. K. Hitchcock, Jr.		$25 00	
Interest			65 86	
				90 86
Music:				
To be applied to the incidental expenses of the Department	Anonymous			600 00
Oriental Languages:				
For Salaries, 1903–04	Through St. Bartholomew's Church		$600 00	
For Salaries, 1903–04	Anonymous		1,000 00	
For Dept. of Indo-Iranian Languages	Anonymous		1 40	
				1,601 40
Carried forward				$1,396,171 04

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Brought forward				$1,396,171 04
Philosophy:				
For Salaries for four years	Anonymous			20,000 00
(6)				
Miscellaneous:				
Fund for General Purposes	Anonymous		$20,000 00	
Fund to enable deserving students to visit the Louisiana Purchase Exposition	Anonymous		5,000 00	
To be applied to the annual contribution of Columbia University toward the School for Oriental Studies in Jerusalem	Anonymous	$25 00		
	J. D. Prince	50 00		
	Oscar S. Straus	50 00		
	Dept. of Oriental Languages	25 00		
			150 00	
				25,150 00
(7)				$1,441,321 04

Gifts other than Money:		
Portrait of Chief-Justice John Jay, Class of 1764	For the University	Mrs. James H. Canfield
Bronze bust of Caius Octavius Cæsar Augustus, with marble pedestal	" " "	Dr. J. Ackerman Coles
Bust of Frederick Christian Havemeyer	" " "	Henry O. Havemeyer
Bronze portrait bust of William C. Schermerhorn	" " "	Mrs. William C. Schermerhorn
Building for the religious and social uses of students taking summer courses in surveying at Morris, Conn.	For the University Young Men's Christian Association of Columbia University	
Collection of books treating of bookbinding, practical and historical	Avery Architectural Library	Mr. and Mrs. Samuel P. Avery
Specimens of perfumes	Dept. of Chemistry	Stearns & Gordon (through Dr. T. C. Stearns)
2 lbs. Borneo camphor (Borneol)	" " "	Ampere Electrochemical Co. (through H. C. Roller)
27 bottles perfumes and perfumed substances	" " "	Herbene Pharmacal Co. (through Dr. Alois von Isakovics)
5 samples of enfleurage concreted	" " "	Chiris & Co. (through Dr. T. C. Stearns)
Biscuit tile for drying precipitates	" " "	Dr. Karl Langenbeck
Collection of dyes and 34-lb. samples of rare coal-tar colors	" " "	Farbenfabriken of Elberfeld, F. Bayer & Co. (through Dr. Hugo Schweitzer)

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GIFTS AND BEQUESTS 1903–04—*Continued*

Specimens of synthetic drugs	Dept. of Chemistry	Fischer Chem. Importing Co.
Specimens of synthetic drugs	" " "	C. Bischoff & Co.
Specimens of drugs	" " "	Dodge & Olcott (Dr. F. D. Dodge)
Synthetic drugs	" " "	Victor Koechl & Co.
Synthetic drugs	" " "	Schering & Glatz
Synthetic drugs	" " "	Parke, Davis, & Co.
Synthetic drugs	" " "	A. Klipstein & Co.
Synthetic drugs	" " "	Merck & Co.
Photograph of Thomas L. Willson, founder of the calcium carbide and acetylene industries; also photograph of his laboratory	" " "	Thomas L. Willson
Fine specimens of ferro-silicon and titanium nitride	" " "	Willson Aluminum Co. (through George O. Seward)
Specimen of chemically pure lead made by the Betts process	" " "	E. F. Kern
Covellite, Rambler Mine, Wyoming	" " "	Professor E. H. Miller
Section of the old Maiden Lane wooden water-main	" " "	C. M. Moseman
Printing plates for artotype three-color process	" " "	Edward Bierstadt
Fulgurite from Cumberland County, N. J.	" " "	W. C. Uhlig
Specimens of artificial graphite. Large pig of silicon	" " "	E. J. Acheson, International Acheson Graphite Co., Niagara Falls, N. Y.
Corundum and associated minerals from North Carolina	" " "	Charles N. Jenks
Specimens of chromic iron and associated minerals	" " "	W. J. Henderson, Black Lake Chrome & Asbestos Co., Montreal
Specimens illustrating the manufacture of basic steel	" " "	J. W. Carpenter, supt. Shoenberger Steel Works, Pittsburgh, Pa.
Edison Iron-Nickel Storage Battery, complete, with separate plates and other parts illustrating its construction	" " "	Edison Storage Battery Co. (through Reynold Janney and Robt. A. Fliess)

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Plates for Buehne lead-wool storage battery	Dept. of Chemistry	C. Pilz, agent for Aug. Buehne & Co., Freiburg
Enamelled kitchen ware	" " "	Reed Mfg. Co., Newark, N. J.
A graphite crucible	" " "	Dr. J. S. C. Wells
Collection of monographs on new coal-tar colors, together with dyed samples	" " "	Cassella Color Co., Frankfort
Pure rubber overshoe, made and used by the natives at Para	" " "	H. C. Arnold
Specimens of extremely pure thoria and neodymia	" " "	Prof. Chas. Baskerville
Set of specimens illustrating "Neugutta," a combination of carnauba wax and gutta-percha	" " "	A. W. Hahn, Class of 1905
Specimen of very pure chromium	" " "	Franklin H. Kalbfleisch
Specimens illustrating alumino-thermics	" " "	Dr. Hans Goldschmidt, Essen
15-lb. pig of silicon	" " "	The Carborundum Co., Niagara Falls
Specimens illustrating process for fixing atmospheric nitrogen by electricity	" " "	The Atmospheric Products Co., Niagara Falls. Messrs. Bradley & Lovejoy
Section of a tusk of fossil ivory from the Alaskan mammoth	" " "	Brig.-Gen. Timothy E. Wilcox
The new Monochrome Vapor Lamp	" " "	General Electric Co., Schenectady. Dr. W. R. Whitney and S. Ferguson
Three different forms of the new Welsbach gas arc lamps	" " "	The Welsbach Co., Mr. Sidney Mason and Mr. M. C. Whitaker

Samples of ore were also received by the Quantitative and Assay Laboratories from the following firms: G. H. Clevenger, Herman Poole, John A. Mathews, Ricketts & Banks, Montana Copper Co., National Lead Co., G. W. Thompson, Ledoux & Co., A. M. Grant.

One Wheatstone bridge and two special Weston volt meters	Dept. of Elec. Eng.	J. Stanford Brown
One Tachometer, one set of test cells	" " " "	J. Stanford Brown
Machinery and apparatus	" " " "	Crocker-Wheeler Co. (through Mr. Gano S. Dunn and Dr. S. S. Wheeler)

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GIFTS AND BEQUESTS 1903–04—*Continued*

Collection of parts showing construction of electric motors	Dept. of Elec. Eng.	Robbins and Myers, Springfield, O.
Westinghouse alternating current motor and four alternating current measuring instruments, with accessories	" " " "	Westinghouse Electric and Mfg. Co.
Material illustrating the manufacture of paper boxes	Dept. of Mech. Eng.	Edgar C. Barratt
Steam turbine of 30-horse-power capacity	" " " "	DeLaval Steam Turbine Co. (through Mr. E. S. Lea)
Large and valuable collection of apparatus for illustrating the teaching of Laryngology and Rhinology	Medical School	Dr. George M. Lefferts
Eighty-four large blue-prints, from working drawings of mine head-frames	Department of Mining	American Bridge Co., Phila. (through Mr. Paul E. Wolfell)
Twenty-four blue-prints from working drawings	" " "	Smuggler Mining Co., Aspen, Colorado (through Mr. Francis T. Freeland)
Considerable amount of radium, with other rare and valuable chemicals	Department of Physics	Hugo Lieber

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COLUMBIA COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University in the City of New York,

SIR:

I beg to submit herewith my report upon the College for the academic year ending June 30, 1904.

The number of students matriculated during the year was 504, distributed as follows:

Seniors	110
Juniors	115
Sophomores	112
Freshmen	118
Special Students	49—504

In addition to the above there were twenty-eight university students taking one or more courses in the College, making a total of 532.

Ages of Students

The ages of the students at the beginning of the year were as in the following table:

AGES OF STUDENTS

	Number in class	Average yrs.	Average mo.	Oldest yrs.	Oldest mo.	Youngest yrs.	Youngest mo.	Median yrs.	Median mo.
Senior	110	21	9.3	34	4	18	11	21	3
Junior	115	20	4.8	32	11	17	2	20	1
Sophomore	112	19	2	26	10	16	3	18	9
Freshman	118	18	3.6	25	1	15	3	18	1
Special	49	23	1.6	39	..	17	2	21	5

The "median" age indicates that one half of the class is of that age or younger, the other half of that age or older, the extremes being given in the columns "oldest" and "youngest."

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Number in each class of the following ages:

	Senior	Junior	Sophomore	Freshman	Special
15–16	..	..	..	2	..
16–17	..	..	3	16	..
17–18	..	5	18	37	2
18–19	1	18	41	34	5
19–20	11	32	25	16	4
20–21	36	28	13	6	8
21–22	21	19	7	2	11
22–23	24	3	2	2	2
23–24	9	2	..	2	2
24–25	2	2	2	..	3
25–26	1	4	..	1	4
26–27	1	..	1	1	..
27–28	1	1	..	..	..
28–29	1	..	..	..	4
29–30	..	..	..	..	..
30–31	..	..	..	..	..
31–32	..	..	..	..	..
32–33	..	1	..	..	..
33–34	1	..	..	..	..
34–35	1	..	..	..	1
36–37	..	..	..	..	..
38–39	..	..	..	..	2
39–40	..	..	..	..	1

The residences of the students are given in the report of the Registrar.

Students from other Colleges Of the students admitted, thirty-one were received on certificates from other colleges, as follows:

Institutions	Senior	Junior	Sophomore
Adelbert College	..	..	1
Allegheny College	..	..	1
Amherst College	1	..	..
Colby College	..	1	..
College of the City of New York	..	5	3
Cornell University	..	..	2
Georgetown University	..	1	..
Hobart College	..	1	..
Johns Hopkins University	..	1	..
Kentucky University	1	..	..
Lafayette College	..	1	..
Leland Stanford, Jr., University	1	..	..
New York University	..	2	..
Niagara University	..	1	..
St. Francis Xavier College	1	..	..
St. Stephens College	1	1	..
Syracuse University	1	1	..
University of Denver	..	..	1
University of Nebraska	..	1	..
Wesleyan University	..	1	..

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Of the members of the Freshman class, eighty-three were admitted provisionally—that is, with entrance conditions to fulfil. Such students are held under probation till the end of the first half-year. Just prior to the close of the probationary period, the Dean considers the special reports made to him by heads of departments in the case of each conditioned student, and determines whether he is to be admitted to full standing, have his period of probation extended, or be dropped from the roll.

Under this provision twenty-six were advanced to full standing at the end of the first term; the others had their period of probation extended until the beginning of the next academic year. Two members of the Freshman class, four of the Sophomore class, three of the Junior class, four of the Senior class, and six special students retired from the College during the year.

Subjects Offered for Admission

Under the wide privilege accorded candidates for admission in making the fifteen points required, of the one hundred and thirteen students admitted on examination to the Freshman class (five were admitted without examination on the Regents' Academic Diploma), forty-three offered both Greek and Latin for entrance, fifty-four offered Latin and not Greek, and sixteen offered neither Greek nor Latin.

Number of Hours a Week Taken by Students

A table is here given containing the number of hours a week taken by the students in the several classes. Of the Seniors, eighteen are unaccounted for, eight having taken the full first-year course in medicine, and ten the full first-year course in one of the Schools of Applied Science. Fourteen members of the Senior class, some of whom elected also extra studies in the College, took the first-year course in law, which is credited in the table with fifteen hours a week.

Hours a week	Freshmen (118)	Sophomores (112)	Juniors (115)	Seniors (110)
9	..	..	..	1
10	..	..	1	..
11	..	.	..	..
12	7	1	1	2
13	..	1	..	3
14	10	3	5	5

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Hours a week	Freshmen (118)	Sophomores (112)	Juniors (115)	Seniors (110)
15	29	11	19	25
16	12	19	16	9
17	28	23	27	17
18	16	16	15	10
19	10	14	12	11
20	4	9	9	5
21	1	10	5	1
22	1	4	2	3
23	..	1	2	..
24	..	..	1	..

Choice of Electives

The choice of electives outside of prescribed subjects, the number of students who have begun in College the study of Greek, French, German, Chemistry, and Physics, and other items of interest formerly given in the Dean's report, may be learned from the report of the Registrar.

There are two prizes for bestowal upon members of the graduating class: The Prize of the Alumni Association and the Chanler Historical Prize.

Prizes and Scholarships

The three students nominated by the Faculty to the Senior class as candidates for the Alumni Prize of $50, given annually by the Association of the Alumni to the "most faithful and deserving student of the graduating class," were Donald Clifford Brace, Oscar Rempel Houston, and Leonard Gordon McAneny; and Mr. McAneny was chosen by the class to receive the prize.

The Chanler Historical Prize, consisting of the income of a fund of $1000 bequeathed by J. Winthrop Chanler, of the Class of 1847, and given annually to that member of the graduating class who shall be the author of the best original manuscript essay in English prose on the history of civil government in America, or some other historical subject assigned by the Faculty, was awarded to Edwin Chester Vogel for an essay on "The Career of the Whig Party."

The "Curtis Medals," provided annually out of the income of a fund, established and named in honor of the memory of the late George William Curtis, for excellence in the public delivery of English orations written by the competitors, were awarded for the first time—the Gold Medal to Howard Augustin Butler, of the Class of 1904, and the Silver Medal to William Joseph Donovan, of the Class of 1905.

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Five scholarships of the annual value of one hundred and fifty dollars each during the College course are open for competition to candidates for admission to the Freshman class who are examined in June and pass complete entrance examinations in subjects aggregating the fifteen points requisite for admission:

The Alumni Competitive Scholarship, open to all candidates. The papers of the candidates who pass a satisfactory examination are considered by the Committee on Admissions, and the one whose papers as a whole are entitled to the highest rank is awarded the scholarship. At the recent examinations this scholarship was awarded to William Schrieber, De Witt Clinton High School, general average, 89.67 per cent. of a possible maximum.

A Hewitt or Harper Scholarship, open for competition to graduates of the New York City High Schools. At the recent examinations a Harper Scholarship was awarded to Clement S. Brainin, De Witt Clinton High School, general average, 88.20 per cent.

Three Brooklyn Scholarships, open for competition to candidates who are residents of Brooklyn, N. Y., and have received their training in either the public or the private schools of that borough. The papers of the qualified competitors who pass a satisfactory examination are considered by the Committee on Admissions, and the three candidates whose papers as a whole are entitled to the highest rank are awarded the scholarships. At the recent examination these scholarships were awarded to William H. Allen, Jr., Brooklyn Boys' High School, average, 86.60 per cent.; Louis J. Wolff, Brooklyn Boys' High School, average, 85.10 per cent.; Ira Skutch, Brooklyn Boys' High School, average, 82.73 per cent.

Graduation

Ninety-two members of the Class of 1904 had conferred upon them at the Commencement, held on the eighth instant, the degree of Bachelor of Arts. Of the remaining eighteen members of this class, four retired from the College during the year, and fourteen failed to satisfy the requirements for a degree and were not graduated. Two members of the Class of 1902, five members of the Class of 1903, one member of the Junior class (who satisfied the

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conditions for graduation in three years), and two unclassified students, having fulfilled the requirements for graduation in the course of the year, were also awarded the bachelor's degree—making a total of one hundred and two.

The College Curriculum

Within the past five and twenty years, the expansion of Columbia as a whole has been rapid and in many directions. Since 1879 all the non-professional university faculties have been constituted and the proper work of each arranged and carried forward with enthusiasm and success. Many members of the College faculty have been interested, and engaged, in this university development. It is but natural, therefore, that the curriculum and the specific work of the College should have been, both consciously and unconsciously, affected. How far they have been affected, and whether favorably or otherwise, have been matters of careful consideration by the faculty for more than a year past. Briefly, the inquiry has been directed to the questions—Have the rapid progress and enlargement of the institution caused the aim and purpose of the College to be, in any measure, lost sight of, and have successive acts of university legislation operated to deprive the College course of its homogeneity and effectiveness? Should the course of study be more largely adapted to individual capacities and needs by increasing its flexibility? Should the time be shortened of required undergraduate residence, in order to meet the new educational conditions that have arisen in the United States? Should purely professional courses, given by the several professional faculties of the University, be allowed to form any part, and if so what part, of the course for the degree of bachelor of arts? Should the work of the curriculum be made more intensive than now, and if so, in what way? Should the college degree of bachelor of science be revived, and if so, what should be the requirements for it as distinguished from those for bachelor of arts? These and cognate questions have been considered and reported upon by committees and discussed by the faculty frequently and at length. The connection of the College with the professional faculties has become so intimate and is regarded as so important that no general conclusions have yet been reached.

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Nearly fifty years ago a committee of the Trustees, appointed to consider and report measures to increase the efficiency and usefulness of the College, stated clearly, succinctly, and wisely the true aim and purpose of a collegiate education—"The proper object of instruction of undergraduates," said the committee, "is to train and discipline the mind; not only to impart absolute or special knowledge so far as may be accomplished collaterally in the process of training, but to fix habits of close attention and application and to induce the ready exercise of the reasoning faculties." In the light of this presentment, it would, on reflection, appear evident that the aim and purpose of the College have been obscured, and that the homogeneity and effectiveness of the curriculum have been injuriously affected. The present undergraduate course of study, whatever may be its merits, is not consistent with the true purpose of an academic curriculum. The obligatory studies, which are general and not special in their character, are so scattered through the course and intermingled with others that are elective and, many of them, more or less specialized, as to lose much, or all, of their disciplinary power: and this is particularly the case when taken in connection with the fact that the inducements involved in the curriculum itself are so greatly in favor of early specialization—in the six-year course for A.B. and a technical degree, and in the permission to take the senior year wholly in one of the technical or professional schools. These inducements tend to make students, and do make many of them, impatient of the obligatory studies and desirous of "getting rid" of them as hurriedly as they can. A curriculum so indulgent to the desires and caprices of students, and so captivating, I might say urgent, in its invitation to young men, before they can fairly know their own minds or judge of their own aptitudes, to forestall their future, to take a short cut to any one of several different professional or business careers, is not homogeneous: it is not effective—it is rather the reverse of effective—in carrying out the principal purpose of collegiate training.

The Purpose of the College Course

I hope the final outcome of the prolonged discussion will

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be to set clearly in view "the proper object of instruction of undergraduates," to make the academic curriculum homogeneous and highly effective in accomplishing this "proper object," and to preserve the College in its dignity and general usefulness.

College Hall

I note, with more regret and greater misgiving than I care to express in this report, that the one hundred and fiftieth anniversary of the founding of the College will find Columbia without a College Hall worthy of the name, and, so far as I am aware, without any near prospect of one.

Respectfully submitted,

J. H. VAN AMRINGE,

Dean.

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SCHOOL OF LAW

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor to submit the following report of the condition of the School of Law for the academic year ending June 30, 1904.

The number of students primarily registered in the School during the year has been 384, distributed as follows:

Third-Year Class	121
Second-Year Class	152
First-Year Class	110
Special Student	1
Total	384

The diminution in the number of students from last year (460 to 384) is explained by the reduction of the first-year class to a graduate basis, and the rigorous elimination of the unfit from the second-year class through the examinations of the previous spring. The opening of the academic year 1902–03 being the last opportunity for non-graduates to secure admission to the Law School, the entering class of that year was unusually large and unusually weak, numbering 178 (as against 162 in 1901), only 102 of whom were college graduates. This year, of the 110 members of the first-year class, 96 are

Enrolment Statistics

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graduates of approved colleges, two were admitted on evidence of training equivalent to that of a full college course, and the remaining 12 are men previously registered in the School who are, for various reasons, still technically recorded as of the first-year class. To these 110 should be added 22 members of the senior class of Columbia College who are, under the Statutes, permitted to take the entire work of the first year in the Law School and are therefore for all practical purposes members of the first-year class—making a total of 132 in the class and of 406 in the school. The number of new matriculations in the Law School during the past year, including admissions to advanced standing, was 111, all of which, with the exception of the two noted above, were based on approved college degrees.

The total number of college graduates in the Law School is 295, the largest number ever registered. Whatever other fluctuations the membership of the School may have undergone, its college membership has shown a steady and gratifying increase. The following are the figures for the last ten years:

1894–95	136
1895–96	179
1896–97	218
1897–98	230
1898–99	222
1899–1900	254
1900–01	288
1901–02	279
1902–03	291
1903–04	295

It is reasonable to believe that the rate of growth which these figures indicate will be largely increased during the next few years.

The courses given under the auspices of the Law Faculty, the names of the instructors, the number of lectures given per week in each subject, the number of students taking the several courses, and the number presenting themselves for examination therein, are given in the following table:

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First Year

Instructor	Title of Course	Hours per Week	Number Registered	Number Examined
Prof. Terry	Contracts	4	122	111
Prof. Stone	Criminal Law	2	82	87
Prof. Scott	Equity	3*	125	115
Prof. Redfield	Pleading and Practice	2	130	121
Prof. Kirchwey	Real and Personal Property	2	131	126
Prof. Burdick	Torts	2	123	100
Prof. Burgess	American Constitutional Law	2	46	39

Second Year

Mr. Reynolds	Agency	2	146	137
Mr. Reynolds	Bailments and Carriers	2	108	104
Prof. Stone	Equity: Trusts	2	149	144
Prof. Burdick	Insurance	2*	90	89
Prof. Canfield	Negotiable Paper	2	125	122
Prof. Redfield	Pleading and Practice	2	104	101
Prof. Scott	Quasi-Contracts	3*	108	104
Prof. Kirchwey	Real and Personal Property	2	146	152
Prof. Burdick	Sales of Personal Property	2	142	137
Prof. Goodnow	Administrative Law	2*	20	15
Prof. Goodnow	Law of Officers	2*	24	24
Prof. Burgess	Comparative Constitutional Law	2	26	20
Prof. Munroe Smith	Institutes of Roman Law	2	10	8

Third Year

Mr. Hayes	Bankruptcy	2*	9	10
Prof. Canfield	Corporations	2	120	120
Mr. Hayes	Damages	2*	8	8
Prof. Stone	Equity	2	104	106
Mr. Huntington	Evidence	2	120	121
Prof. Scott	Mortgages	2	101	108
Prof. Burdick	Partnership	2	107	106
Prof. Redfield	Pleading and Practice	2*	46	47
Prof. Kirchwey	Real and Personal Property	2	42	47
Prof. Scott	Suretyship	2*	56	55
Prof. Canfield	Trusts and Perpetuities	2*	18	18
Prof. Redfield	Wills and Administration	2	74	76
Prof. Burgess	American Constitutional Law	2	36	37
Prof. Moore	Conflict of Laws	1	6	6
Prof. Moore	International Law	2	15	15
Prof. Goodnow	Municipal Corporations	2*	59	58
Prof. Munroe Smith	Spanish-American Law	1	2	2
Prof. Goodnow	Taxation, Law of	2*	35	35

* Half-year courses

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In addition to the foregoing, Professor Munroe Smith's courses in Comparative Jurisprudence and History of European Law were also offered to the members of the third-year class in the Law School, but were not elected for the degree of LL.B.

The principal changes from the curriculum of the preceding year have been:

Changes in the Curriculum

1st. The omission of the course in Domestic Relations and the Law of Persons;

2d. The expansion of the course in the Law of Mortgages from a half-year into a full-year course of two hours per week;

3d. The addition of a course on the Law of Damages to the work of the third year;

4th. The separation of the course in Administrative Law into two distinct courses of half a year each, the first dealing with general principles of public administration, and the second with the Law of Officers with especial reference to the Extraordinary Legal Remedies.

5th. The offer by Professor Munroe Smith of his course in Comparative Jurisprudence, in addition to the course in the History of European Law, as a part of the work of the third year.

The omission of the course in Domestic Relations was deemed necessary in order to avoid overburdening Professor James B. Scott, who was to give the course, in his first year of service. It will be given during the coming year to the first-year class, and at the same time offered as an elective to the second-year class.

The enlargement of the course in Mortgages from a half-year to a full-year course has made it possible for the first time to give adequate treatment to that important branch of the law. The fact that the course was elected by over 100 members of the third-year class seems to indicate a real demand for a more thorough study of the subject, such as the expansion of the course has rendered possible.

The course in Damages, instituted as an experiment, has not been elected by a sufficient number of students to insure its retention in the curriculum. As a minor course of a

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purely technical character it is in competition with more important, not to say imperative, courses of an equally technical character. In the already crowded condition of the curriculum it may well be that a relatively unimportant subject like this may, notwithstanding its intrinsic importance, be crowded out. It will, however, be offered next year on condition that it be elected by a sufficient number of students to justify its being given.

The division of the course in Administrative Law is, so far as the method of giving the course is concerned, nothing new, the subject having, for teaching purposes, been so divided by Professor Goodnow for several years past. The change to which reference is made consists in permitting the students to take the technical half of the subject—the Law of Officers—without being compelled to take the untechnical and non-professional course of the first half-year on the general principles of administration. The large increase in the number of students taking the course on the Law of Officers (from 3 in 1900, 7 in 1901, and 8 in 1902 to 24 during the past year) indicates the importance of the change from the point of view of the professional student of law.

The lack of students in the course in the History of European Law induced Professor Munroe Smith to offer simultaneously with it his course in Comparative Jurisprudence. The fact that both of these important courses, indispensable to the legal scholar, were not elected by any students in the Law School for the degree of LL.B. shows how exclusively the professional ideal continues to dominate the student who is looking forward to the practice of law. That the professional student of law should devote himself primarily or even exclusively to the studies which minister directly to professional success is of course not to be wondered at; nor is it properly a subject for complaint. But it is certainly a matter for regret that the Law School does not attract more men to pursue the study of law for non-professional ends of scholarship and research. The gradual process of specialization by which law teaching is being set apart from the practice of law as a separate and distinct profession, and the gradual recognition of the fact that the law teacher must also be the

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law writer, and that in either view he must be grounded in legal theory and legal history as well as in the technical studies of the legal profession, will doubtless do much to remedy this state of affairs.

I venture to submit, however, that the present lack of interest in theoretical law studies furnishes no reason for discontinuing them, but a reason rather for increasing their number and insisting upon their importance. Here, as elsewhere, the University must lead and must create the demand for pure learning by freely offering its services in that direction and by calling attention to the advantages which it offers. It can hardly be doubted that a frank recognition of the fact that a university school of law does not adequately fulfil its functions unless it is also a school of jurisprudence, and a bold announcement that it proposes, while continuing to give the best possible professional education in law, to furnish also unrivalled facilities for legal research, would meet with a prompt and generous response.

The Choice of Electives

In addition to the growth of the class in Administrative Law previously considered, the most significant changes in the choice of electives have been the increase in the numbers taking the elective courses in Practice and Pleading (in the second year, 61 to 104; in the third year, 22 to 46), and in Wills and Administration (30 to 74). These are not accidental changes, but indicate a growing appreciation by the student body of the importance and practical value of Professor Redfield's work. The reduction in the numbers electing the third-year course in Property (99 to 42) and in Suretyship (124 to 56), may, on the other hand, be regarded as temporary, the former being attributable to an unusual number of failures in that subject in the previous year, and the latter to the fact that the subject was transferred from one of the strongest and most popular professors (Professor Burdick) to a new and untried man. Professor Scott's unqualified success in this, as in the other courses given by him this year, will doubtless have the effect of re-establishing the course in the favor of the class to which it is offered. It is pleasant in this connection to record the marked success of Mr. Reynolds in the courses in Agency and Carriers, as well as that of

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Professor Stone in the difficult courses (Trusts and Equity) given by him this year for the first time.

The foregoing table discloses, further, the gratifying fact that the law students continue to take the courses (especially those of a technical character) offered by members of the Faculty of Political Science in the Law School, the numbers and proportion of those electing one or more courses in Public Law for the degree of LL.B. being nearly the same as during the preceding year, viz.:

First-Year Class	48
Second-Year Class	44
Third-Year Class	85
Total	177

In addition to these, 56 students in the Law School have pursued studies under the Faculty of Political Science for the degree of Master of Arts, and many more have taken courses in Roman and Public Law as optional studies, of which no record is kept.

The final examinations for the degree of LL.B. resulted as follows:

Of the 119 members of the third-year class, 118 presented themselves for examination, of whom 12 failed in one or more subjects. Of former members of the School who were entitled to take the examinations for the degree, eight presented themselves, four of whom passed successfully in the subjects in which they were deficient. The number of candidates recommended by the Faculty for the degree of Bachelor of Laws was 110. **Graduation**

The changes in the distribution of subjects during the past year have been as follows:

Professor James B. Scott, the latest addition to the Faculty, assumed the work in first-year Equity, Quasi-Contracts, Mortgages, and Suretyship. Mr. Reynolds, one of the newly appointed lecturers, has given regular instruction in Agency and in Bailments and Carriers, having expanded the latter topic so as to include public service corporations of every sort. Professor Stone has carried the work of Professor Keener's old courses, Trusts and third- **The Distribution of Subjects**

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year Equity, in addition to his first-year course in Criminal Law. Professor Burdick has given Insurance, and Professor Canfield the courses in Negotiable Paper and Corporations; while Mr. Huntington, also a recently appointed lecturer, has taught the subject of Evidence. Mr. Hayes, released from the course in Domestic Relations in consequence of its omission this year, has given the newly established course on Damages.

The changes determined upon for next year are not numerous, though they are sufficiently important to find a place in this record. Professor Stone resigns the subject of Criminal Law to Professor Scott, taking the first year of the work in Equity in lieu thereof. Professor Scott, as previously announced, will also give Admiralty to the second-year class, and Domestic Relations to the first- and second-year classes. The course in Bankruptcy, heretofore given by Mr. Hayes, will be assumed by Professor Burdick, while Mr. Hayes, in addition to his work as Lecturer on Damages, will take the place of Mr. Kaps as Assistant in Practice and Pleading, Mr. Kaps retiring to resume his practice at the bar. Professor Thaddeus D. Kenneson, A.M., LL.B., of the New York bar and for several years past a Professor of Law in New York University, has accepted an appointment as Lecturer in Law for the ensuing year and will give the instruction in Evidence, Mr. Huntington having found the work of giving that course too burdensome in connection with his private practice. The course in Spanish-American Law, offered for two or three years past by Professor Munroe Smith, has not attracted enough students to justify its retention, and it will therefore be discontinued and a new course on Modern Civil Law given in its stead.

The Entering Class

It may be of interest to call attention to the effect already produced on the quality of the student body by the recent change in the requirements for admission to the Law School. It was hardly to be expected that the course of the University authorities in prescribing a college education as the basis of the legal training here afforded would be justified in the experience of the first year under that arrangement. But such has been the case. There could hardly be a more convincing demonstration of the wisdom of

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this action than has been afforded by the results of the examinations of the first-year class held at the close of the year. As, under our system, these examinations furnish the first opportunity of testing the quality of the new students, they have usually resulted in a deplorable number of failures, the total number of those failing in one or more subjects barely falling short of one half of the entire class. As the subjoined statistics will show, this number has now been cut down to a figure representing less than a quarter of the class, and, with the elimination which will be effected next year of the non-graduates from the class of students known as "repeaters," this proportion should be still further reduced. The figures for the last five years are as follows:

The Results of Examinations

	Number Examined	Number of Failures	Percentage of Failures
1900	166	66	40
1901	170	73	43
1902	161	67	42
1903	172	78	45
1904	112	27	24

The results of the examinations in the more difficult subjects of the course are even more striking, the number of failures in Real and Personal Property, for example, having seldom fallen below 50, and having regularly involved from 30 to 35 per cent. of the class; whereas, of the present first-year class, with an actual increase of five per cent. in the passing mark, only 14 failed, or 12½ per cent. of those taking the examinations.

A certain percentage of failure, due to indifference or to careless or misdirected work, may always be expected, and the number of those so suffering during the past year is perhaps not greatly in excess of a normal rate of failure. We may, however, with our present standard of admission, reasonably look forward to the practical disappearance from the entering class of the hopelessly unfit. Testing the presence of this element by the failure to pass satisfactory examinations in three or more of the subjects of the first year, we find that it has already been reduced to an insignificant proportion of the class. The figures for the last four years are as follows:

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	Failures	Percentage
1901	33	22
1902	40	26
1903	34	24
1904	10	9

This number can and, in my opinion, should be further reduced by striking from the list of colleges whose graduates are now admitted without examination certain institutions which supply us regularly with students of the poorest quality. Out of twenty-seven men who have in the last three years entered the School from a group of nine such institutions, only three made a fairly creditable record and the astonishing number of twenty made hopeless failures in their first year—a result which goes far to justify the suggestion made by me in my report of two years ago that we may yet be compelled to demand some further evidence of fitness for our work than that furnished by an academic degree.

The Alumni Association

Reference was made in my last annual report to the revival and reorganization of the old Alumni Association of the Law School, and the hope was there expressed that the Association would in the years to come exercise a wholesome and potent influence on the life and fortunes of the School of Law. That this expression of hope was no mere dream has already become evident in the active interest which the Association has during the past year manifested in the well-being of the School and its graduates. Not only did it provide the admirable course of lectures on "Professional Opportunities of the Lawyer," given to the students and graduates of the School during the spring of the present year (a list of which will be found in this volume in Appendix No. 2 to the President's Report), but it has, by the establishment of an employment office or exchange for graduates, rendered a distinct service to the profession as well as to the School. It is hoped that it may by this means keep in touch with the alumni of the School for many years after graduation and thus not only be of service in procuring clerkships for beginners in the practice of law, but also lend a helping hand at all stages of their legal career.

It is gratifying to be able to report that the important

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lectureship on the Science of Law, established a year ago through the munificence of General H. W. Carpentier in memory of his brother, James S. Carpentier, has been worthily filled for the ensuing year by the appointment of the Rt. Hon. James Bryce, M.P., of London, England. While Mr. Bryce's achievements as the historian of the Holy Roman Empire and the interpreter of the American Commonwealth to the public of Europe, as well as his distinguished position in the political life of Great Britain, have somewhat obscured his fame as a lawyer, no serious student of the law is ignorant of the fact that the man who for twenty-three years filled the chair of Regius Professor of Civil Law at Oxford is one of the most brilliant jurists and legal scholars of our time. His acceptance of the appointment as the first incumbent of a lectureship which cannot fail to be as distinguished as it will be useful to the legal scholarship of America is a notable event in the history of the Law School and of the University.

The Carpentier Lectureship

Respectfully submitted,

GEORGE W. KIRCHWEY,

Dean.

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COLLEGE OF PHYSICIANS AND SURGEONS

REPORT OF THE ACTING DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor to submit the following report of the College of Physicians and Surgeons for the year 1903–04:

Registration Statistics

The entering class of students numbered 121 as compared with 201 in 1902–03. This great decline in numbers is a source of gratification, inasmuch as it is the immediate result of a greatly heightened standard of admission, the excellent effect of which upon the quality of the entering class has been made apparent at once.

One evidence of this is the fact that, of the 121 students admitted in 1903, 64 possess degrees in arts or science; whereas of the 201 admitted in 1902 such degrees were possessed by not more than 70.

The graduating class of 1904 numbers 174. Of this number, 121 had, on June 8, secured hospital positions in New York City and elsewhere.

Since the beginning of the year 1903–04 important provision has been made, by means of scholarships, for facilitating the study of medicine by men of ability but of comparatively limited means.

Scholarships

Harsen Scholarships have been endowed by means of a fund bequeathed in 1859 by the late Jacob Harsen, M.D., a graduate of this College, for the purpose of "promoting the study of Medical and Surgical Practice." The income of this fund, hitherto distributed as Harsen Prizes,

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has been made available, instead, for the foregoing purpose, by an order of the Supreme Court.

Beside the Harsen Scholarships thus established, William H. Vanderbilt Scholarships and Faculty Scholarships have been established by the Trustees.

The advantages of the foregoing scholarships have, in pursuance of the recommendations of a special Committee, been divided among 25 able and meritorious students.

Summer Courses

For the summer courses offered in 1904, there have registered, up to June 8, 47 persons, distributed among the departments as follows, viz.:

Physical Diagnosis	20
Obstetrics	13
Hospital Surgery	6
Pediatrics	2
Laryngology	3
Minor Surgery	2
Gynecology	1

Practice of Medicine

In the Department of the Practice of Medicine no material changes have been made, as the curriculum was thoroughly revised two years ago. The addition of a new and modern projection apparatus to the lecture room equipment has facilitated the thorough illustration of the didactic lectures.

Professor Delafield's clinics have been continued throughout the year, and have been especially devoted to the treatment of disease; also the continuance of Dr. Peabody's amphitheatre clinics during the period of his service at Roosevelt Hospital has been of much value to the Department.

The efficiency of the teaching of physical diagnosis has been improved by subdividing the sections so as to make the number of students present at each lesson only half what was the case formerly. For next year a still further and long-needed improvement in this branch of teaching is planned, namely, a still further subdivision of sections, and the appointment of an additional instructor in physical diagnosis, who will make use of the abundant material of the Bellevue Hospital Out-Patient Department, in addition to the facilities hitherto in use.

For next year also an additional course of instruction in physical diagnosis will be given to the second-year class, consisting of lectures and demonstrations to sections—charts, diagrams, models, and lantern slides being freely used. It is hoped that by this means one of the most serious stum-

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bling blocks in the way of the study of medicine will be removed, namely, the difficulty of acquiring a satisfactory and practical knowledge of the physical signs afforded by the heart, lungs, and abdominal organs in health and disease.

In the summer course abundant opportunities are offered for instruction in physical diagnosis, in general medicine, and in clinical microscopy.

A Maria McLean Proudfit Fellow in Medicine has for the first time been appointed, viz., Linsley R. Williams, M.D., Columbia, 1899, for the two years beginning July 1, 1904. Dr. Williams will take for his theme of study the problem of tuberculosis among the poorer classes.

Anatomy

In the Department of Anatomy the course in Mammalian Morphology to the members of the first-year class, as a preparation for the study of Histology and Physiology, was given this year for the first time and proved eminently satisfactory. The course covers the first half of the year, with two laboratory exercises a week of one hour each per student.

The Department began to institute in the session just completed a change in the administration of the teaching equipment by installing portions of the Museum of Human and Comparative Anatomy as a study collection in the Dissecting Room, designed to be accessible to the student at all times and available in direct conjunction with the practical laboratory work in anatomy. The series dealing with the bony thorax, ribs and sternum, and the circulatory apparatus have been put in place, and the preparations forming the serial exhibit of the respiratory system and genito-urinary tract have been made ready for installment. The results of the policy inaugurated by the Department in this respect have, even with the moderate beginning so far made, been strikingly beneficial, and it is hoped that provision will be made in the future for a complete and systematic extension of the plan. The selected preparations, in square jars and with the structures plainly labelled *in situ*, are assembled in the form of a consecutive serial exhibit. Each preparation, mounted when required on a rotating stand, is accompanied by a full set of photographs with leaders to structures not already labelled in the specimen, and by a full descriptive tablet, emphasizing the purpose of the preparation, the structures it is designed to exhibit, and their relation to the series as a whole. The Department has been led to adopt this plan through the following considerations:

(1) Long experience in the administration of the section-teaching in Anatomy has strengthened the conviction that this method of instruction, while admirable in its results

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within certain limits, yet requires to be supplemented, in order to completely fulfil its purpose, by affording the student the opportunity of examining at his leisure the structures forming the basis of the demonstration, and of reviewing the same whenever in the progress of the course this becomes desirable. This opportunity is afforded by the permanent serial exhibition of the teaching equipment, fully labelled and provided with the descriptive matter, as above outlined. The anatomical museum by itself, even if it were properly equipped with stands and cases, cannot fulfil this function, because the material, as ordinarily arranged, without full labelling and description, and without provision for examination from all sides in a good light, is likely to confuse the novice, and fail to give the clear and definite impression desired.

(2) The College of Physicians and Surgeons, as the result of unremitting effort extending over the past fifteen years, is to-day in possession of a Museum of Human and Comparative Anatomy and of an Anatomical Teaching Collection which is unrivalled. While the continued growth of this equipment seems assured, the Department feels strongly that the time has arrived for utilizing the material in hand and presently available to the best advantage for medical education. In addition to the portion of the collection destined for exhibition in the Dissecting Room, it is hoped that the upper museum floor of the Anatomical Building will in the near future be properly equipped as a study and teaching museum for medical undergraduates. In this effort the Department of Anatomy hopes for the co-operation of the Departments of Surgery and Genito-Urinary Diseases. The ultimate design, if carried out, will enable the student to pass, so far as the actual objects are concerned, from the study of the anatomy of any region in all its bearings to the consideration of the correlated surgical topographical features and finally to the pathological conditions affecting, as the results of injury or disease, the same structures. This plan will, of course, demand considerable time and effort, before it can be put even approximately into execution. As far, however, as the anatomical section of the project is concerned, the quantity of available and appropriate material on hand urgently demands that a beginning be made at once, and the Department expresses the earnest hope that the University will find it feasible to install the necessary equipment in suitable stands, glassware, and mounts.

The regular courses of instruction offered by the Department have been conducted during the session with very satisfactory results.

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The following scientific contributions were made by members of the staff during the academic year:

At the 17th Session of the Association of American Anatomists, in Philadelphia, December 29–31, 1903:

G. S. HUNTINGTON: The Supracostal Muscle; its Occurrence in the Mammalian Series, Relation to Human Variants, and Bearing on the Morphology of the Ventro-lateral Trunk-musculature.
B. B. GALLAUDET: A Description of the Gross Anatomy of the Thalamus of the Human Brain.
E. A. SPITZKA: The Brains of Three Brothers.
A Note on the Weight of the Human Lungs.
Preparations showing the Form of the Human Heart and the Stomach in their Contracted Conditions.

At the meeting of the Society for Clinical Surgery at New York, March 18, 1904:

C. CARMALT: On the Morphology of the Salivary Glands.

Professor Huntington, on June 7th, delivered the Shattuck Lecture before the Massachusetts Medical Society in Boston on:

The Relation of Comparative Anatomy to Medical Education and Practice.

Neurology

In the Department of Neurology, during the past year from September 26 to February 6, Professor Starr gave lectures once a week upon the subject of diseases of the brain and insanity. Localization of brain functions, aphasia, paralysis, disturbances of sensations of sight and of hearing and of the cranial nerves were fully discussed and illustrated by lantern slides. The subjects of apoplexy from cerebral hemorrhage, embolism, and thrombosis, of cerebral atrophies of children, with maldevelopment of the brain, of tumors of the brain and abscess of the brain, of acute encephalitis, paresis, multiple sclerosis, and syphilis of the nervous system were also discussed. Each of these lectures and subjects was illustrated by the presentation of patients in the clinic, the clinic on Friday being supplementary to the lecture on Wednesday, and fifty-six patients being shown during this period to illustrate conditions that had been lectured upon. The subject of insanity was treated in five lectures, the symptomatology of mental disease, the diagnosis of the different types of insanity, and the prognosis and treatment being discussed in the lectures, and four clinics being held by Dr. Peterson at which twenty-four patients were shown illustrating conditions of melancholia, mania, dementia, paresis, and paranoia.

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From February 5 to May 6 the lectures were wholly clinical. Professor Starr showed at these clinics patients suffering from spinal cord affection; anterior poliomyelitis, syringomyelia, locomotor ataxia, lateral sclerosis, and myelitis; various forms of multiple neuritis and lesions of single nerves; children suffering from chorea; ten patients suffering from epilepsy; and a large variety of functional nervous affections. As the fourth-year students, who attended these clinics, had during their third year heard didactic lectures upon the subject of spinal-cord disease and disease of the nerves, they were prepared to understand and appreciate the clinical demonstrations of these diseases. Thus in the course of the year the entire subject of nervous diseases was covered at the clinics, and the subject was treated in a definite and progressive order. This is possible at the Vanderbilt Clinic on account of the large amount of material which is at the disposal of the nervous department—about two thousand one hundred new cases having been registered during the past year in addition to about two thousand former patients who have made visits to the clinic.

The didactic and clinical lectures were fully illustrated by lantern slides showing the pathology and pathological anatomy of the nervous system. The Department has in its possession over six hundred slides illustrating types of nervous disease, and demonstrating both gross and microscopic lesions. Many photographs of patients presenting visible deformities and clinical conditions are also at the disposal of the Department, such collection having been accumulated by the constant photographing of patients at the Vanderbilt Clinic which has been in progress for the last ten years. In addition to this instruction carried on by the Professor, the students have been taught by the Chief of Clinic, Dr. Pearce Bailey, and the Instructor in Nervous Diseases, Dr. Richard H. Cunningham, in the subjects of the examination of patients suffering from nervous diseases, electro-diagnosis, and electro-therapeutics. This instruction is given to sections of the class, twelve or fourteen men being instructed in a section, each of which receives twelve hours of such instruction. This instruction is entirely clinical, patients being utilized to demonstrate the various conditions studied, and the students being allowed to examine and diagnosticate cases of nervous diseases.

In the Vanderbilt Clinic twelve assistants have been at work in the Department of Nervous Diseases, and these men have not only studied the cases coming to the clinic, but have taken careful histories in books prepared by Professor Starr for the recording of each type of nervous disease. A

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mass of clinical material has been accumulated in this manner, and some valuable contributions to the literature of nervous diseases have been made by various assistants at the clinic. Dr. L. Pierce Clark has published a study of one thousand seven hundred and fifty cases of epilepsy observed in the clinic. Professor Starr has published a review of these cases, together with two hundred and fifty private cases of epilepsy; a study of chorea, based upon one thousand four hundred cases observed at the clinic; a study of "Cerebral atrophies of children," based upon four hundred cases observed at the clinic; and an article on "Arterial diseases as the cause of nervous affection," based largely upon clinical material. Drs. L. Pierce Clark and Thomas P. Prout have done considerable pathological work in a small pathological laboratory attached to the Department of Nervous Diseases, and at present have several important pieces of pathological work there under way.

Surgery

In the Department of Surgery the most important change has been the resignation of Prof. Wm. T. Bull, and his appointment as Emeritus Professor of Surgery to take effect on July 1, 1904. Dr. Bull will, however, continue his interest in the Department by taking a part of the clinical lectures at the Vanderbilt Clinic. Dr. Joseph A. Blake was appointed Professor of Surgery in the early part of the year, and becomes the administrative head of the Department. Dr. George E. Brewer, formerly Clinical Lecturer in Surgery, has been appointed Professor of Clinical Surgery, with a seat in the Faculty.

An important change in the scope of the Department has been effected by the merging with it of the Department of Genito-Urinary Diseases, which merger will allow of an advantageous correlation of the instruction given in that Department with that of the Department of Surgery.

Dr. Ellsworth Eliot, Jr., Clinical Lecturer and Demonstrator in Surgery, has resigned, and, instead of continuing the recitations as given by Dr. Eliot to the entire class, two instructors, Drs. A. V. S. Lambert and Eugene H. Pool, have been appointed, who will conduct recitations to small sections of the third-year class, so that each student may recite twice each week. Dr. E. Milton Foote has resigned as Chief of Clinic, and will, with Professor Brewer, conduct a course in section-teaching in the fourth year of study at the City Hospital. This course will be particularly valuable because of the unexceptionable opportunities afforded in the wards of that hospital. Dr. P. R. Turnure has been appointed Chief of Clinic at the Vanderbilt Clinic and Instructor in Surgery, and

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will conduct the section-teaching in the third year formerly given by Dr. Foote.

Dr. Chas. H. Peck has been appointed Instructor in Surgery to fill the vacancy in the section-teaching at the Roosevelt Hospital, occasioned by the advancement of Professor Brewer. On account of the impracticability of conducting recitations for the whole second-year class, a course of lectures has been given by Dr. W. B. Coley, covering the same topics which were to have been recited upon.

The Laboratory for Surgical Research has been housed in one of the small rooms near the Department of Physiological Chemistry, and, notwithstanding the narrow quarters, some very creditable work has been done, namely, on the repair of wounds of arteries by Prof. G. E. Brewer; further studies upon the employment of a modification of the McGraw ligature in performing gastro-enterostomy, and some observations on the causation of the Circulus Vitiosus, by Dr. J. W. D. Maury; and a modification of the Murphy button, by Dr. Joseph A. Blake.

Obstetrics and Gynecology

In the Department of Obstetrics there has been little change in the method of instruction from that of last year. The plan of recitations during the second year, lectures and clinics during the first half of the third year, and two weeks' residence at the Sloane Maternity Hospital during the fourth year has proven extremely valuable to the student. By the appointment during the year of Dr. Henry McM. Painter as Professor of Clinical Obstetrics, with a seat in the Faculty, it is hoped that the Department will be strengthened along clinical lines.

In Gynecology the instruction has been thoroughly reorganized, and that given to each student nearly doubled as compared with that of former years. As at present conducted the instruction during the third year consists of recitations during the first half, conducted by Dr. Mathews, and lectures, both didactic and clinical, given by Professor Cragin during the second half.

During the fourth year the students are divided into small sections and receive instruction at the Vanderbilt Clinic in diagnosis and treatment from Drs. Stone, Oastler, Proben, and Healy.

In addition to this they are taught at the Roosevelt Hospital, in small sections, minor operative gynecology by Dr. Taylor, and are invited each week to a major gynecological operative clinic conducted by Dr. Tuttle.

In the Department of Pediatrics weekly clinical lectures

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Pediatrics

upon ambulatory cases were given during the first half of the year in the amphitheatre of the Vanderbilt Clinic by Professor Holt. The material was drawn principally from the cases treated in the Clinic, this amounting, on an average, to over 300 new patients a month; but frequently interesting cases were sent in from the private practice of some of the assistants and from institutions in the city. The method followed in these clinics was to take up some topic and illustrate it by a group of cases. With the abundant material at the disposal of the Department it was thus possible in a single hour to show the student many phases of a disease. The average attendance of students at these clinics was 247.

During the second half of the year a weekly didactic lecture was given by Professor Holt to the classes of the third and fourth years. There were covered in these lectures the acute contagious diseases of childhood (measles, diphtheria, scarlet fever, and pertussis), these subjects having been this year transferred to the Department of Pediatrics from that of General Medicine; and in addition, the acute intestinal disorders of infancy and childhood.

Throughout the college year clinical instruction was given by Professor Holt at the Babies' or Foundling Hospital twice a week. Each student attended for two months, and was thus able to see practically all the important acute cases in one of these institutions for the period. The following is the method of instruction adopted: Four students were sent to the Hospital, one hour or more before the clinic; one case was assigned to two students for examination. These cases were presented by them to the balance of the class. This was followed by a free discussion of their reports and a general consideration of the case as to diagnosis, prognosis, and treatment. Subsequently each student presenting a case made a written report upon it, covering the history, examination, and discussion. The exercise usually lasted for two hours. This work was most satisfactory, and proved to be of great value in training the student in the habit of careful, systematic observation. At these conferences the class also had an opportunity to witness autopsies and see many pathological specimens from cases previously studied clinically.

To the third-year class instruction was given in sections by Dr. L. E. La Fetra, Chief of Clinic, at the Vanderbilt Clinic. Each section received ten lessons covering the fundamental principles in the examination and treatment of sick children.

During the last half of the year, fourth-year students had an opportunity of doing practical work in the Vanderbilt Clinic in small groups under the direction of the clinical assistants.

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The other departments of Clinical Instruction at the Vanderbilt Clinic have been prosperously conducted, owing largely to the very numerous and interesting cases to be studied at that institution, of the work of which particulars are contained in the Superintendent's Report for 1903, which is already in your hands. **Clinical Departments**

The following changes in the heads of departments have taken place since my last report:

The resignation of Professor George M. Lefferts has taken effect, at the end of a distinguished service of thirty years as a teacher of Laryngology, and Dr. William K. Simpson has been appointed his successor.

Professor Albert H. Buck has resigned from the Department of Otology, and Professor Gorham Bacon has been appointed to succeed him from and after July 1, 1904. Dr. Robert Lewis, Chief of Clinic, has been voted the thanks of the Faculty for his able service as temporary head of the Department of Otology during Professor Buck's leave of absence since January 1, 1904.

Dr. Arnold Knapp, who has successfully directed the work of the Department of Ophthalmology during 1903–04 has been appointed to succeed Professor Herman Knapp from and after July 1, 1904.

Professor Robert W. Taylor has resigned from the Department of Genito-Urinary Diseases, and Dr. James R. Hayden has been appointed his successor.

By friendly agreement between Professor Blake and Professor Hayden, duly ratified by the Faculty, the Department of Genito-Urinary Diseases will, after July 1, be merged in that of Surgery, under the general directorship of Professor Blake.

Of the Department of Materia Medica and Therapeutics, since the beginning of the year 1903–04, an entire readjustment has been made. Dr. C. A. Herter has been made Professor of Materia Medica and Therapeutics, Dr. Samuel Waldron Lambert, Professor of Applied Therapeutics, and Dr. Smith Ely Jelliffe, Instructor in Materia Medica and Director of the Pharmaceutical Department. Drs. W. A. Bastedo and F. S. Meara have been made tutors. Dr. Herter has spent the year in Europe with a view to elaborating a suitable course in experimental pharmacology for the students, and as Dr. Lambert's duties will not begin till October, 1904, the work of the Department has practically been under the care of Dr. Jelliffe. **Materia Medica and Therapeutics**

In order to complete the course of lectures as outlined by Dr. Peabody for students of the third year in medicine, Dr.

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Jelliffe has given weekly lectures covering the ground proposed by Dr. Peabody.

As a part of the work of the new plan, weekly lectures by Dr. Jelliffe have been given for one half the year in the principles of Materia Medica to students of the second year, and these students have done practical work in pharmaceutical manipulation in the newly equipped prescription department of the pharmaceutical laboratory. Here for eight weeks, four hours weekly, the class, in sections, has followed out a series of exercises in drug manipulation, making the students further acquainted with the physical character and pharmaceutical properties of drugs. This course was planned by Drs. Jelliffe and Bastedo, and has been supervised by them throughout.

Starting with the simpler pharmaceutical products, the students have been instructed in the manufacture of all the chief galenical preparations, in the course of which they have handled at least 200 official drugs and prepared at least 100 official prescriptions. Furthermore, they have made with their own hands such things as flax-seed poultices, mustard plasters, gruels, peptonized and medicated, various milk preparations, such as junkets, wheys, dextrinized and peptonized milk products, and other preparations of a like character.

During the year a beginning has been made in equipping in the prescription department a small working pharmacy outfit, looking forward to work for the more advanced students who shall desire to do further prescription work in the third and fourth years. A series of colored charts of medicinal plants which was formerly in the Professor's private room has been placed in the laboratory so that they can be seen by the students, and a beginning has been made of a museum set of official drugs, so placed as to be daily open to inspection, in recognition of the pedagogic value of the accessibility of museum-specimens of the newer drugs, and the like.

Each student of the second year has had a weekly recitation from a recognized text-book. This work has completed that of the Department of Materia Medica and Therapeutics.

Pathology

In the Department of Pathology, with which are closely associated in administration the sections in Clinical Pathology, Bacteriology and Hygiene, and Normal Histology, an unusual amount of routine work has been required owing to the duplication of courses made necessary by the readjustment of the curriculum effected this year, the entire course in Normal Histology having been moved to the first year and the course in Clinical Pathology

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transferred from the fourth to the third year. Over one thousand students have thus received practical laboratory instruction in one-half or one-quarter year courses in this Department during the session.

The advancement of Dr. Hiss to an adjunct professorship of Bacteriology, of Dr. Wood to an adjunct professorship of Clinical Pathology, and of Dr. Bailey to an adjunct professorship of Normal Histology, during the present year, marks an important step towards the more effective administration of these subjects, whose importance urges their placing, as soon as possible, upon an independent footing.

The research work of the Department has been pursued with enthusiasm and marked success.

In the section of Bacteriology and Hygiene Professor Hiss has completed a series of studies on the dysentery organism and allied forms of bacteria. Dr. Norris has finished an extended study of bacterial precipitins, and with Dr. Emerson is conducting a study on an interesting organism causing epidemic disease in frogs. Dr. Wadsworth has finished a study of experimental pneumonia and of agglutination and capsule staining of the pneumococcus. Professor Arnold Knapp has nearly concluded a series of studies on trachoma and on organisms allied to the diphtheria bacillus. Dr. Soper is engaged in a study of artificial water purification.

In Pathology over thirteen hundred specimens have been received and examined. Many of these have been the subjects of extended reports; a large proportion have been used for class demonstrations or reserved for future study, or for addition to the permanent collection. The Director of the Department has completed the revision of the seventh edition of Delafield and Prudden's *Pathology*. Professor Wood has nearly completed a new book on *Chemical and Microscopical Diagnosis*, which will be published in the autumn, and has published the results of an extended study of tumors of the parotid gland. Dr. Vogel has published a study on quantitative methods for albumin determinations. Dr. Ditman is at work with Professor Gies on certain phases of eclampsia, and is carrying on a series of studies on the metabolism of micro-organisms.

Professor Bailey will shortly send to press a new text-book on Normal Histology.

Dr. S. J. Meltzer and Drs. Auer and Salant, under research grants from the Rockefeller Institute, have by invitation made use of the facilities of the Department in a series of studies in experimental pathology. Dr. Langmann, also by invitation, has been carrying forward his studies on snake venom

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The laboratory facilities have been made use of by several of the clinical assistants of the College as well as by physicians who regularly contribute pathological material used in class demonstration.

The close of the academic year marks the retirement from the instruction force of Dr. George P. Biggs, Dr. A. S. Chittenden, Dr. Karl Connell, and Dr. A. S. Corwin. Dr. Austen Fox Riggs succeeds Dr. Chittenden as Assistant in Pathology.

Physiology

The Department of Physiology has given instruction to 7 students in the summer school; to 1 special student and 1 student of Columbia College in elementary physiology at Schermerhorn Hall; and, in various courses in advanced physiology at the College of Physicians and Surgeons, to 3 candidates for the degree of A.M., 8 candidates for the degree of Ph.D., and 263 candidates for the degree of M.D., of which last 150 were medical students of the second year, and 113 were medical students of the first year.

A complete reconstruction of the required course for medical students in Physiology went into effect during the year 1903–04, and, I am happy to say, with the most gratifying results.

Each student admitted prior to September, 1903, was required to attend during his first two years, three lectures a week, and one demonstration a week, in Physiology.

Each student of the class admitted in September, 1903, has been, and will be, required to attend, during the second half of his first year, and the first half of his second year, three lectures, one demonstration, one recitation, and one laboratory exercise during each week, in Physiology.

Moreover, this class began work in physiology immediately after the completion of a course in Mammalian Morphology, expressly preparatory to Physiology, and conducted by the Professor of Anatomy.

The teaching has thus been condensed from two years into one, and has been enriched with recitations, and, above all, with laboratory work done by the student himself. This last is the part of the new course in Physiology which has been most carefully prepared for, and from which very noteworthy results have been obtained.

Thanks to the skill and zeal of the Superintendent and Assistant Superintendent of Buildings and Grounds, a new physiological laboratory has been thoroughly equipped for practical work by students; the cost of the necessary apparatus has been defrayed from the equipment fund of the Swift Physiological Cabinet; and Drs. Burton-Opitz, Emerson, Shearer, and Bingham have vied with one another, and with the students whom they have taught, in striving successfully

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for the achievement of an ambitious and difficult task. The interest of the students in this has been shown by their remarkably constant attendance in the laboratory.

As our course in Physiology stands to-day, I believe that, in the judicious grade of its "concentration," in the excellent balance of its theoretical and practical instruction, and especially in the scope and character of its laboratory work, it is second to none other offered either at home or abroad.

The following investigators have worked, in 1903–04, in the physiological research laboratory, at the themes set opposite their names:

R. BURTON-OPITZ: The influence of alcohol on the viscosity of the blood. The relations of the thyroid gland to the viscosity of the blood.
J. H. CLAIBORNE and E. B. COBURN: The value of collargolum and antistreptococcus serum in infected wounds of the eye.
HAVEN EMERSON: The functions of the capsule of the kidney. The effects of introducing oxygen into the veins. An epidemic disease among frogs. Intra-abdominal pressure.
I. LEVIN: The functions of the capsule of the kidney.
J. W. D. MAURY (Under the auspices of the Department of Surgery): A modification of the McGraw elastic ligature.
G. M. PARKER: The motor phenomena of chorea.
RICHARD WEIL: The physiological action of pneumonia serum on the heart.

Dr. Frederic S. Lee has been advanced in title, from Adjunct Professor of Physiology to Professor of Physiology; and, from and after July 1, 1904, he will, in accordance with his own desire, limit his duties as a teacher to the giving of a course of lectures upon General Physiology.

Dr. Russell Burton-Opitz has been promoted to be Adjunct Professor of Physiology, from and after the same date, and Dr. Haven Emerson to be Demonstrator of Physiology.

Authority has been given by the Trustees to appoint a third Assistant Demonstrator of Physiology.

The Department of Physiological Chemistry, during the past year, has given instruction to 182 candidates for the degree of M.D.—64 of the first year and 118 of the second; to 21 candidates for the degree of A.M., to 6 candidates for the degree of Ph.D. and to 10 special workers.

The elective courses have never been so largely attended, nor has the number of first-year men who elected the course *required* in the second year ever before been so great.

Interest in research continues to increase among the workers in the Department of Physiological Chemistry. Drs. W. S. Schley, Samuel Bookman, John Howland, G. M. Meyer, and N. E. Ditman, and Messrs. H. M. Hays, Davenport

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White, H. L. White, R. V. Ottenberg, W. J. Hickson, W. J. Heiman, and W. C. Uhlig have been conducting researches, chiefly along *clinical* lines. Bert Russell, A.M., of the University of Minnesota, and E. R. Posner, M.D., of the College of Physicians and Surgeons, have had fellowships in Physiological Chemistry and have concluded important investigations. Drs. A. N. Richards and William Salant have been conducting researches in this Department under the auspices of the Rockefeller Institute for Medical Research. Professor Gies has directed and co-operated in most of the researches, and has continued to assist in directing chemical research at the New York Botanical Garden, where he has been reappointed consulting chemist.

Physiological Chemistry

Numerous publications have been issued from the Department during the year, among them Volume I. of *Biochemical Researches*. This volume of 746 pages was edited and published by Professor Gies. It consists of reprints of all the publications issued from the Department, from the time of its establishment in 1898 to the end of the previous academic year. Volume II. is in course of preparation. (A list of the publications from the Department is given in the *Columbia Quarterly*, 1903, v., p. 490; 1904, vi., p. 218.)

During the year the Department of Chemistry at the College of Physicians and Surgeons was merged into the Department of Physiological Chemistry. Hereafter instruction in general chemistry in the College of Physicians and Surgeons will be given by Professor Gies and assistants. This change will also result in considerably increasing the research facilities of the Department. The teaching staff of the Department has been increased by the addition of one tutor and one assistant. Professor Gies has been assigned to a seat in the medical faculty, and also in the faculty of the School of Pharmacy.

Dr. Richards spent the summer of 1903 in Strassburg engaged in research in Physiological Chemistry under Hofmeister, and in Pharmacology under Schmiedeberg.

After six years of faithful and efficient service, first as Assistant and lately as Tutor, Dr. Richards retired from this Department at the end of the year to become Instructor in Pharmacology under Dr. Herter.

Drs. E. R. Posner and G. M. Meyer have co-operated during the year in performing the duties of the assistant. Dr. Posner has been appointed Tutor and Dr. Meyer Assistant for the ensuing year. Dr. Meyer has been one of the official reviewers for the *Biochemisches Centralblatt*.

Last January a formal poll of the alumni and patrons of Pennsylvania College was taken for their preference for President of that institution. Professor Gies, who is a gradu-

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ate of Pennsylvania College, received the largest vote, but declined the election proposed by the nominating committee of the Trustees. Professor Gies has been re-elected Secretary of the Society for Experimental Biology and Medicine.

Throughout the year the Department has been greatly favored in its researches by the officers of the New York Botanical Garden and the New York Zoölogical Park, who have freely supplied an abundance of valuable material.

Dr. Edward Curtis, Emeritus Professor of Materia Medica and Therapeutics, has been invited to give a course of three optional lectures, during 1904–05, upon the subject of medical examination for life-insurance.

Professor Walter B. James has been elected by the Faculty of Medicine to be its delegate to the University Council for the three years beginning July 1, 1904.

Respectfully submitted,

JOHN G. CURTIS,

Acting Dean.

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SCHOOL OF MINES
SCHOOL OF CHEMISTRY
SCHOOL OF ENGINEERING

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
of the City of New York,

SIR:

I have the honor to present the report of the fortieth annual session just closed of the Schools under the Faculty of Applied Science.

Growth of the Schools

For statistics concerning the numbers and relative growth in the Schools of Applied Science I refer you to the tables presented by the Registrar in which this information is summarized in tabular form. It will be apparent that the growth in numbers, in strength, and in interest has suffered no abatement. The number of students who come to New York and to Columbia after completing in whole or in part a course of study in other universities or technical schools is still manifest, and is believed to be an element of strength for Columbia which the University should foster. This tendency is especially manifest as respects the School of Mines, and is an evidence of the value placed upon the Columbia degree in this course. It gives special significance to the gift of the building for Mining and Metallurgy at Columbia, one of whose most valuable consequences will be the increased facilities for instruction in these particular lines which the enlarged area and equipment are to present.

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The gift of the building for Mining and Metallurgy by Mr. Alfred Lewisohn is the most significant event of the year for the Faculty. It means not only the recognition of the historic School of Mines, which is the parent stem from which the Schools of Engineering and Chemistry have grown, but it means also a great step forward in the development of that type of instruction in Mining Engineering for which Columbia and its Schools of Applied Science have stood. Columbia University has aimed to have its instruction in the pure theory of Mathematics, Physics, and Chemistry on a plane as high as that in any other school of science. In addition to this aim, however, Columbia has always stood for an effort to bring about a union between science and art, or between knowledge and achievement, by its earnest insistence upon the laboratory idea. This theory of education has meant the development of the laboratory idea over and beyond the standpoints set by other institutions with different aims. It has entailed the construction of costly and elaborate buildings for the housing of the work of collections; it has meant the providing of large floor areas for laboratories and drawing rooms; it has meant the installation and preparation of laboratory apparatus on a scale and of a size which has made its laboratories the object of justifiable pride. The object of the teaching in Engineering, as Columbia has outlined it, has been to give to the student both familiarity with principle and law, and at the same time knowledge of the practical form which engineering problems take on the other hand. It is our effort to make him independent in his professional work, since engineering makes two demands upon its practitioners. The first is the execution of work based upon a knowledge of the broad and general problems of engineering, and the second is the solution of new problems. It is our object to develop the scientific engineer, by whom the best work of the profession will be done. Pursuant to this general policy the laboratory idea demands the following educational program:

The School of Mines Building

The Education of the Engineer

a. The discussion and solution of problems in the classroom with assumed data.

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b. The determination of data in the laboratory and the solution of problems based on the results of actual experiment.

c. A study and criticism upon the problem and its solution, together with the results, with a view to originating recommendations from the outcome of these experiments.

d. The problem of research is opened from the critical study in the third group.

In carrying out this theory of education the laboratory instruction should involve the following distinct didactic elements:

(1) A clear statement of the net result desired.

(2) A division of this result into its elements.

(3) A decision of the quantities which are observable and which are to be measured.

(4) A selection of the methods to be employed from among a large number possible, with the reasons for this selection.

(5) A similar selection of the instruments to be used, with the reasons.

(6) A determination of the error of these instruments. This is called calibration.

(7) A determination of personal errors and the methods for the elimination of mistakes.

(8) A computation of the elemental results observed in the experiment (2 above).

(9) A computation of the net results (1) from these elemental results.

(10) A computation of results ideally possible from theoretical considerations.

(11) A comparison of the results found thus ideally possible, together with a determination of all the differences, with their respective causes. These two latter are the core and kernel of the whole laboratory theory of instruction, to which everything else is directed.

(12) To decide which causes of the above differences are avoidable wholly, avoidable in part, or unavoidable.

(13) A study of suggestions, and the elimination of such differences between actual and ideal results. This study, when carried to its logical conclusion, results in invention

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and in true progress in applied science. This is true professional work.

(14) Suggestions as to new experimental determinations to prove the critical treatment in 12 and 13 to be well founded or otherwise.

It is plain that this educational scheme is at the bottom of the existence at Columbia of the great laboratory equipment in Mining and Mechanical Engineering. It is possible to have the laboratory equipment consist of small examples which can properly be designated as models, or it can be attained by the use of the larger examples, so that the conditions existing in the world of applied science outside of the University can be to some degree reproduced within it. It is plain that if the results of the college investigation in the laboratory are to have any significance to the community, the large-size apparatus is the only intelligent equipment. The results from small apparatus are not only unreliable, but they are incomparable with the results from large apparatus. The element of size makes a large-scale problem differ from the small-scale problem not only in degree but in kind. It is the belief of the writer that the insistence at Columbia of its large-scale laboratory equipment is largely to be credited for its reputation among the other institutions as attracting students of high grade and capacity, who recognize the advantage which equipment of this character brings to them both in study and in fitting them for subsequent usefulness.

Laboratory Equipment

The new building will provide for the laboratories of Mining and Metallurgy, including ore-dressing, concentration, prospecting work, and the like. It will furnish additional class-rooms very greatly needed for the current work of all departments. It will furnish an additional drawing-room in Engineering greatly needed by the students in the upper classes, and will give opportunities for the development and expansion of the work in Mining and Metallurgy, which should be of the greatest service and significance for a long series of years. It is interesting to recall that the first important and suitable building regarded by the authorities of Columbia was the building for the accommodation of the then School of Mines in 1874 at the 49th Street site. The

Problems of Space

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next step was the destruction of an old building and its replacement by a new building for Engineering and Chemistry, Mineralogy and Geology, in 1881. The great relief resulting from entering on the present buildings in 1897 has been followed by the gradual congestion of the buildings specially devoted to the work of the Applied Science students, until efficiency has been invaded by the congestion in drawing-room and class-room. The transfer of the work in Mining and Metallurgy to the new building will permit the desired development in laboratory subjects, and in office accommodation for those departments which will remain in the present Engineering building. The problems of crowding in the shops of Teachers College and in the mechanical laboratories are not affected by the Lewisohn gift. It has been necessary to divide the classes in Electrical Engineering and in Civil Engineering into sections for instruction in the shops, with the result that when the numbers in the class did not divide so that said numbers were a multiple of the units constituting the equipment, it has been necessary to curtail the scope and extent of the instruction for each individual student, so that all might be accommodated for at least a part of the year. In the second year this division has resulted in compelling a division of the students by sections, so that one group receives a reasonably complete instruction in the forge work and the other section a comparable instruction in the machine shop, but neither section receives at all an adequate instruction in the other. In other words, there is not room nor time for instruction both in the forge and machine shops for these students, but until the shops can be extended in area and in equipment there does not seem to be any practical solution other than the one which has been followed this year.

Problems of Curriculum

Another question which has been much before the Faculty this year has been the effort to equalize the requirements of the various courses with each other and in the various years. The second year of the course is at present carefully safeguarded from invasion in order that adequate time may be given for the required study of the Calculus and Mechanics in that year. The result of this safeguarding, however, is that the third year seems to be especially exacting, and

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offers a contrast in the minds of the students with the demands on his time in the second year. While the Faculty, however, try to equalize and protect the demand on the student's time, it still remains that at certain seasons of the year, particularly in the spring, the student often finds himself carrying a burden of exaction upon his time which is greater than he can bear. This condition would appear to call for further action of co-ordination, having particular reference to the practice of giving out problems in engineering to be solved by the student and to be handed in upon a fixed date under penalty. Where this demand becomes cumulative from several departments at one time, the student finds the condition oppressive. This year has also been the year of trial of the system of bringing the class-room requirements within the limit of 18 hours a week in six days, aiming towards an ideal which should bring all class-room assignments between 9.30–12.30 of each day, and leaving the hour between 12.30 and 1.30 free from academic assignments. It has not been possible to carry out this plan fully this year by reason of the transfer of certain subjects from year to year, which has compelled these subjects to be given this year to two classes. It was also found impossible by the gymnasium authorities to bring all students in the first two years of Applied Science into classes on the gymnasium floor without a division into sections. This sectional instruction has made it impossible to carry out the first ideal of the Faculty, which was to put the gymnasium class-work between the hours of 4 and 5, or at the end of the laboratory assignments from 1.30 to 4. This arrangement of putting the gymnasium work at the end of the laboratory period offered so many advantages that the Faculty have been reluctant to abandon it. They have therefore made special efforts to bring this result about so far as possible by asking that special equipment might be provided in a separate room, in order that this class-room instruction might be given without interference with the general requirements of the University, which are very great on the large gymnasium area after four o'clock every day. It is believed that by the arrangements which have been made a decided relief may be secured.

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The Conduct of Examinations

Another question which has been under advisement during the year has been the desire of the students to introduce the honor system into the examinations. In order that this matter may be satisfactorily operated, it is necessary that the conditions in the student body should be emphatically friendly towards it. To secure such friendly sentiment, it is necessary that the contents and scrutiny of the examination papers themselves be always defensible from the pedagogic standpoint, and that the possibility of abuse be carefully guarded. It is furthermore very difficult to secure an enforcement of an honor system when the consequences of a failure in an examination are made so severe that the temptation to dishonest means to pass this examination becomes strengthened, and stronger than the average man is able to resist. Whatever the reasons for the action, it remains that the student body by a majority vote has not taken favorable action in the classes in Applied Science. This gives occasion to the writer to recommend most strongly the educational policy of having less weight attach to the routine examination, and more weight attach to the current work in classroom and laboratory during the term. This recommendation would diminish the number of purely lecture courses before large numbers of students, and would increase the number of recitation exercises conducted with small sections of a size such that a recitation might be had from each member of the section at every exercise, or nearly so. While this would perhaps make modifications in certain methods of instruction and would increase the staff of instructing officers, it is believed that the result would justify itself on pedagogic grounds.

Astronomy

Taking up now the reports of the work of the year from the various departments constituting the Faculty of Applied Science, it should be stated that the year has been one of continued activity and assiduous endeavor. In the Department of Astronomy the continued absence of Professor John K. Rees, by reason of ill-health, has turned the burden of the department upon Professor Harold Jacoby, who has been created full Professor of Astronomy and constituted acting head of the department. Professor Charles Lane Poor, formerly of Johns Hopkins University, has been added to the staff. The department gives the Summer

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School of Geodesy to students in Civil Engineering, and locates itself for this purpose at Osterville, Mass. Additional apparatus for the use of the School has been added during the year.

Chemistry

In the Department of Chemistry there have been considerable changes in the staff. Adjunct Professor Miller and Adjunct Professor Bogert have been advanced to full professors. Dr. H. T. Vulté has been made Adjunct Professor of Domestic Science in Teachers College. Two new tutorships have been created in Qualitative Analysis. Thirty-four courses in Chemistry have been offered by the department, at which varying numbers of students have attended, reaching a maximum of 210. A marked increase in the number of students in the summer courses in Chemistry has been observed during the current year. For the summer of 1904, in addition to the courses heretofore given, a course in theoretical and practical Organic Chemistry will be given, and another treating of the chemistry of food and nutrition. An increasing number of candidates for higher degrees have selected Chemistry as their subject. Dr. Chandler, head of the Department of Chemistry, has been appointed Chairman of the Section of Technical Chemistry of the International Congresses of Arts and Sciences at the St. Louis Exposition. The department has contributed largely to technical literature and by lectures during the year. The Chemical Society under the direction of the department has held a number of interesting meetings. The department has received a number of important and serviceable gifts during the year.

Civil Engineering

The work of the Department of Civil Engineering has been signalized this year by the appointment of Professor W. H. Burr as one of the Commissioners on the Isthmian Canal. The other work of that department has been expanded in the laboratories, particularly in the testing of reinforced concrete. The work of the Summer School at Morris, Conn., has been continued along the lines established nearly two years ago. The increase in the number of students has been particularly noticeable. Some of the permanent buildings of the camp were constructed prior to the opening of the School in 1903, but it was necessary to use tents for a portion of the students. During the summer of 1904 the remaining permanent buildings will be constructed, and the small system of water-works which has grown to be a necessity will be completed. The School maintains a high degree of efficiency. Mr. A. Black, Instructor in Civil Engineering, has been absent on leave, and the duties of his position have been efficiently performed by Mr. B. H. Bisbee.

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Electrical Engineering

In Electrical Engineering the work of the department has been increased by adding to the number of students taking instruction in this department. This has made it necessary, together with the increasing size of the sections, to arrange for subdivisions, and the crowding of sections in the laboratory has forced the department to the most careful and definite arrangement of this work. During the absence of the Dean on leave in the spring, Professor Sever, of the department, was made Acting Dean and discharged his duties with efficiency and success.

Mechanical Engineering

In the Department of Mechanical Engineering the laboratory instruction has developed under the effective leadership of Dr. C. E. Lucke, who was put in charge of the laboratories as Instructor at the beginning of the year. The effectiveness of this laboratory instruction has been evidenced by the increasing interest of the students and from the requests of other departments that more and more instruction of this character might be given to their students. Instruction in the mechanical laboratories will therefore next year be given not only to Mechanical and Electrical Engineers, but also to the students in Mining and Civil Engineering. The growth and increase in numbers in the laboratory has made it necessary to increase the teaching staff both for efficiency and safety. Messrs. H. H. Higbie and C. T. Swart, of the class graduated in 1904, have been added to the staff of the department as assistants. The resignation of Professor W. L. Cathcart as Adjunct Professor of Mechanical Engineering was met by the appointment of Professor Amasa Trowbridge to the vacancy. Professor Trowbridge has developed the work of instruction in machine design to an important stage of progress, and has also done much in improving the instruction in marine engineering and naval architecture. Professor Woolson was appointed a delegate from the city of New York to the International Congress held in London in the summer of 1903 on the general subject of fire protection in large cities. He brought to this conference special information as the result of many testings of fire-resisting properties of timber, and has embodied the results of this conference in an important report to the city which has been made an official document. With the co-operation of the Trustees and other interested parties, a special experimental building has been constructed at the southeast corner of South Field, in which experiments on the fire-resisting properties of various building materials are conducted, and from which results of the greatest commercial and other significance are being obtained. The other work of the testing laboratory has gone on in increasing quantities during the year, both in scientific and in practical directions.

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Reference has been made above to the difficulties introduced into the work of instructing engineering students in the shops of Teachers College. The policy has been followed that the facilities of these shops should be first placed at the disposal of the students in Mechanical Engineering. In the first two years the two sections of these students occupy four days in one shop, and in the second year the same students occupy four days in two shops. This leaves only the afternoons of two days in the week for the students in Electrical and Civil Engineering who are the other groups to be provided for. It would be greatly to the advantage of all engineering students if the equipment and space available could be increased. The Mechanical Engineers were taken on excursions for visits to Providence, R. I., and Bethlehem, Pa. The visit to New England was under the guidance of Instructor C. P. Benns, and the visit to Bethlehem under Instructor Charles C. Sleffel. Both visits were eminently successful; in addition other excursions were made to the important foundries and other shops in the vicinity of New York.

Mining

In the Department of Mining Professor Robert Peele has been absent on leave, but arrangements have been made in the department to supply his place with respect to routine work, and special lectures have been secured from experts in various fields which have been exceedingly valuable and have been much enjoyed. Professor H. S. Munroe has been honored by being asked to be the head of the United Summer Schools of Mining, which has been provided by the action of interested mining engineers and experts, so that the students may have access under favorable circumstances to large-scale mines, where their instruction might be even more effective than under the conditions of the Summer School of Columbia in previous years. Professor Munroe's experience and methods have impressed themselves upon this new school, and he will be absent during the last part of the summer upon his responsible duties in connection with this new undertaking.

Geology

In the Department of Geology the classes have been the largest in the history of the department. A total of 321 registrations has been recorded, and, while the facilities have in general proved equal to the strain of the numbers, additional microscopes are required for the course in Geology 4. The department has been strengthened by the addition of Dr. Charles P. Berkey, who has had charge both of the geological laboratory and of the Saturday excursions and of the work for the Civil Engineers. The summer field-work was this year done at Rondout and Kingston. The inconvenient size of the party, which numbered 104, was

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satisfactorily met by dividing it into parties of ten each, with its own captain.

Mechanics

The Department of Mechanics calls attention to the continued increase in the number of students with which it has to cope in its undergraduate work. The division into two sections which has been carried on this year makes even now these sections inconveniently large, and the necessity is fore-shadowed, if the present rate of influx of students continues, that an increase will be called for in the teaching staff with a view to further subdivision by sections. Dr. Albert P. Wills was made Instructor in Mechanics at the beginning of the year, and his efficient services have met a pressing need.

Metallurgy

In the absence of Professor H. M. Howe of the Department of Metallurgy, the work of the department has been divided and Professor J. W. Richards of Lehigh University has been giving the lectures in the metallurgy of the metals. Mr. Bradley Stoughton, Instructor, has been promoted to the position of Adjunct Professor; and Dr. William Campbell, Barnard Fellow, has been made Instructor in Metallurgy. The department has conducted summer classes for the Mechanical Engineers and Metallurgists, visiting Pittsburg and Harrisburg and making a special study of such large steel works. They made a thermal test of an open-hearth furnace, with a view both of giving the results a practical value and familiarizing the students with the important open-hearth processes. A new plan has been adopted this year with most successful results, whereby the visits to the plant and work during the daytime have been supplemented by quiz classes in the evening. Students in the non-ferrous metallurgy made their summer-course visit to gold, silver, copper, lead, and other plants in Colorado.

Mineralogy

In the Department of Mineralogy instruction has been given to 151 undergraduates. Changes in the course have resulted in an improvement in the quantity of the work done, both by improved mechanical facilities and by an increased use of the museum. This latter has worked so well that for the next year it is proposed to do much of the microscopical and crystal work in the museum rather than in the student collection. This policy has put into actual use all the students' museum specimens, numbering nearly 25,000. Professor Moses has conducted this year on Saturdays an extension course for school teachers and others, and text-books from officers of the department are to be issued in new editions. The equipment of the department has been increased on its working side, and gifts to the Egleston museum have added a number of important items. Dr. L. McI. Luquer,

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who has been connected with the department for seventeen years, has been promoted to the grade of Adjunct Professor and receives six months' leave of absence.

In the Department of Physics the same desirable result of increased efficiency has been the outcome of subdivision of the classes into smaller sections. These sections consist usually of one-sixth of the entire class, and are held to two detailed and careful recitations, both oral and written. Professor E. F. Nichols has been added to the department, with the title of Professor of Experimental Physics, and Dr. Bergen Davis as Tutor. The equipment of the department has been considerably improved, mainly in reference to research and advanced special work. It receives alternating electric current from the street, and is supplied with a large storage battery, so that every facility is provided for satisfactory undergraduate work in these branches. **Physics**

In the Gymnasium Department the two lower classes are held to two hours a week of calisthenics and gymnasium work upon the floor of the gymnasium. They are also held, as a part of these requirements, to practice and instruction in the swimming pool. This gymnasium requirement is exacted as rigorously of the students as their class-room work in any other department, and it is believed that this practice and requirement will be pushed with increasing advantage to all students. Reference has been made above to the necessity of dividing the large classes into sections due to the great use which is made of the gymnasium by the upper classes, by the athletic teams, and by the instructing officers of the University in the late hours of the afternoon. **Gymnasium**

Respectfully submitted,

F. R. HUTTON,

Dean.

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SCHOOL OF ARCHITECTURE

REPORT OF THE ACTING HEAD

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

The School of Architecture has closed the twenty-third year of its history with the largest total registration of students in its history, so far as appears from the catalogues of past years. This registration of 98 students has been only once nearly equalled, viz., by 96 students in 1896–97. Among the 98 registered there were 66 regular undergraduate students; 5 post-graduates, candidates for the degree of Master of Arts; 23 special students, with one or two exceptions professional draughtsmen of experience, not candidates for a degree; 3 students from Columbia College taking one or more courses, and 1 student from Teachers College. As near as my records show, 32 of the 98 had attended colleges or scientific schools of high rank for two years before entering this School. Ten students completed the course before June 8 and received the degree of Bachelor of Science in Architecture; and four others, one of them registered as a Special Student, will complete the requirements for the degree during the summer, making fourteen graduates to be credited to the year 1904, a number which has only once been exceeded in the history of the School. One post-graduate student completed the requirements for the degree of Master of Arts, receiving the degree at Commencement.

Registration Statistics

Two new members have joined the staff of the School: Mr.

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A. H. Gumaer, a graduate in the Class of 1899, taking the place of Mr. W. T. Partridge; and Mr. W. A. Delano, a graduate of Yale and *diplomé* of the Paris School of Fine Arts, that of Mr. H. F. Hornbostel. **The Teaching Staff**

The retirement of Professor Ware has necessitated a redistribution of the duties of instruction among the staff. It was inevitable that the withdrawal from the School of the controlling personality of its founder, who for twenty-two years had guided its development and shaped its methods, should be followed by numerous changes in those methods as well as in the organization of the work. These changes may be briefly stated as follows:

Of the courses given by Professor Ware, the Perspective was assigned to Professor Sherman; the Theory to Professor Hamlin; the Elementary Design to Mr. Gumaer. The Architectural Essays were discontinued as stated exercises in the class-room, the required written work under this title being confined to the five Historical Research Essays of the second term, and occasional papers in connection with the Theory, the summer work, etc. The hours thus released in each year have been assigned to other much-needed work hitherto cramped for lack of time. The time given to Graphics in the first year has been doubled and the Historical Drawing dropped. The time assigned to freehand drawing has been increased in all the classes. Descriptive Geometry has been put back into the second year, and an additional hour given to Specifications in the third year. The third-year men have been given drawing from the cast on a large scale under Mr. Delano, with conspicuously successful results; the pen-and-ink work hitherto given in that year has been assigned to the second year, under Mr. Harriman; and the fourth-year students have been put under the instruction of Mr. Francis C. Jones at the National Academy of Design in drawing from the antique and from life. This has been a gratifyingly successful experiment, and great credit and hearty thanks are due Mr. Jones for his admirable work with this class. The modelling, under Mr. E. R. Smith, in the second year, has been exceptionally well administered this year, and has had eight weeks given it instead of six.

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In the fourth-year Design a new system has been adopted for grading and recording the work. Each design is judged by a jury consisting of the instructor and two architects, the jury never being twice the same; and awards are made of "passes" and "mentions"; counting each for one or more "points" in satisfaction of the year's requirements in Design. A student who fails in one design can make up the deficiency, therefore, only by superior work in a subsequent design, and can never load himself with the incubus of "back work" to be made up; while the pressure is always towards the highest possible attainment instead of the dead level of the "passing-mark of 6." The result has been a very marked improvement in the quality of the work of the class as well as in the assiduity and earnestness with which it has been done.

Design

The amount of time devoted to office-practice has been somewhat increased, and the requirements for summer work have been modified so as to require from two of the three classes either a month's actual work in an architect's office during the summer, or its equivalent in office-drawings executed by the student at home, in conformity with instructions given by the Tutor in Architectural Construction, Mr. C. P. Warren. It is believed that by these means the student will, during his course, become thoroughly familiar with the nature and routine of office work.

Summer Work

Two gifts have been made to the School during the past year by graduates. Mr. Henry F. Hornbostel, of the Class of 1891, presented the fine plaster model of his competitive design for the proposed Grant Monument at Washington; and this is to be set up in the attic, on one of the cross-beams of the opening in the ceiling of the exhibition corridor. Mr. Meyer Jarmulowski, of the Class of 1890, some time ago placed in Professor Ware's hands a sum of money which has been devoted to the purchase of a fine panel of Salviati mosaic, originally made for the Paris Exhibition of 1867.

Gifts

During the year eight lectures have been given to the students, under the general head of Theory of Architecture, by professional architects and decorative artists practising

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in this city. These lectures have been received with hearty appreciation by the students, whom they have brought into touch with the practical and professional aspects of various matters which had previously been studied from the theoretical point of view. This sort of contact with the profession has proved very stimulating; and as the service has in every case been rendered with the most generous cordiality and readiness by those who have lectured, it is hoped that the number of such lectures may be considerably increased in the future. The lecturers and their subjects have been as follows:

Lectures

Mr. TABER SEARS: Tonal Harmonies in Color Decoration.
Mr. SAMUEL HOWE: A Day's Experiences in a Decorator's Life.
Mr. E. H. BLASHFIELD: Treatment of Tones and Values in the Mural Painting of Various Schools.
Mr. MAITLAND ARMSTRONG: Stained Glass.
Mr. WAINWRIGHT PARISH: Starting in the Profession.
Mr. A. W. BRUNNER: Hospitals; their Planning and Construction.
Mr. H. F. HORNBOSTEL: Engineering in Modern Architecture.
Mr. W. A. BORING: Planning a Country House.

The School held its usual annual Exhibition during Commencement week. The attendance upon this exhibition, which had many interesting features, was, as usual, very small. It is extremely desirable that in the near future its place be taken by an exhibition in some downtown gallery, in order to reach those whom it is important to interest in the work of the School.

Exhibition

The organization of the Graduate Society of Columbia University Architects, with a membership of over 150, including many well-known architects formerly students in this School, promises to furnish the School with a strongly organized body of supporters and friends in the profession, from whom much may be expected in the way of efficient and generous aid and co-operation.

Graduate Society

By the exercise of the most rigid economy it has been possible to pay all the contingent expenses of the School out of the so-called equipment fund, and in addition to begin a systematic collection of photographs of the best thesis designs produced each year. This has, however,

Equipment

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made it impossible to make much-needed purchases for the departmental library, which has received almost no accessions in the past six or eight years. The equipment is in other respects becoming worn out and antiquated, and together with the library will require renewal and enlargement in the near future if the School is to maintain its efficiency.

I desire in closing to make grateful mention of the sympathetic and hearty co-operation of the whole staff in the conduct of the work of the School. Feeling new responsibilities they have displayed a new interest in and devotion to the School, and their loyal support has been most welcome under the new and sometimes difficult conditions of this year of transition.

Respectfully submitted,

A. D. F. HAMLIN,

Acting Head of the School.

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FACULTY OF POLITICAL SCIENCE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University in the City of New York,

SIR:

I have the honor to submit the following report of the work of the Faculty of Political Science for the scholastic year 1903–04. During this year the graduate courses offered by this Faculty were attended by 481 students. This does not include Columbia College Seniors, 73 of whom pursued graduate courses; nor Barnard College Seniors, 49 of whom pursued equivalent courses offered by this Faculty. Of the 481 graduate students, 249 were primarily registered under the Faculty of Law, 75 under the Faculty of Philosophy, and 3 under the Faculty of Pure Science. Of the students primarily registered in the School of Political Science, 23 were simultaneously pursuing courses of study in theological seminaries: 20 in the Union Theological Seminary, and 3 in the Drew Theological Seminary.

Attendance

Classified from another point of view, 328 of the 481 graduate students were pursuing the courses offered in the School of Political Science as candidates for the Master's and Doctor's degrees; while 153 law students were taking courses, mainly in public law and comparative jurisprudence, solely as a part of their legal education.

Of the 481 graduate students, 434 were men and 47 women. Of the latter, 33 were primarily registered in the School of Political Science and 14 in the School of Philosophy.

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The growth of the School of Political Science during the past four years is indicated in the following table:

	1900–01	1901–02	1902–03	1903–04
Total students (excluding Seniors in the Colleges).....	268	450	523	481
Primarily registered in Law.....	127	250	320	249
" " in Philosophy	13	44	46	75
" " in Pure Science.....	2	3	1	3
" " in Political Science....	126	153	156	154

The decrease in the total attendance, as will be observed, was due to the decrease in the number of students primarily registered in Law. This simply reflected the decrease of the total attendance in that School, owing to the higher requirements established for admission. The proportion of law students taking courses under the Faculty of Political Science remained the same, viz., about two-thirds of the total Law School registration. At the same time the number of students primarily registered in the Law School, who were candidates for the higher degrees under the direction of the Faculty of Political Science, increased from 59 in 1902–03 to 96 in 1903–04. The number of students primarily registered in the School of Political Science remained nearly the same, in spite of the fact that the number of students who were simultaneously pursuing courses in theological seminaries decreased from 42 in 1902–03 to 23 in 1903–04. Deducting in each of the two years these theological students, the number of students devoting themselves exclusively to graduate non-professional work under the direction of the Faculty of Political Science increased from 114 in 1902–03 to 131 in 1903–04. At the same time the number of Seniors in the Colleges electing graduate or equivalent courses offered by the Faculty of Political Science increased from 69 in 1902–03 to 122 in 1903–04; so that the entire number of students receiving instruction of graduate quality under this Faculty increased from 592 in the former year to 603 in the latter.

During the past academic year, 53 candidates having all their subjects, or at least their major subject, under this

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Faculty, have been promoted to the degree of Master of Arts; and 10 candidates having all their subjects, or at least their major subject and one minor subject, under this Faculty, have been promoted to the degree of Doctor of Philosophy. Of these 10, 2 had their major subject in history, 3 in public law, 2 in economics, and 3 in sociology. **Degrees**

Except in two instances, where an advanced course was elected by less than three qualified students, and excepting one of Professor Sloane's courses which was suspended during his absence, the courses included in the several groups of History and Political Philosophy, Public Law and Comparative Jurisprudence, and Economics and Social Science, were duly delivered. The attendance within each group will be found in the Registrar's report, pages 220–221. **Courses**

From the seminars come the following reports of work accomplished during the year: **Seminars**

SEMINARS IN EUROPEAN HISTORY

Seminar in later Mediæval and Modern European History. Professor Robinson. 2 hours fortnightly. 13 members.

The year was devoted to the reading and discussion of Otto of Freising's Chronicle and its continuation (Continuatio Sanblasiana). No formal papers were read.

Opening of the Lutheran revolt: research course. Professor Robinson. 2 hours weekly. 8 members.

The subject of study was Luther's Latin letters, 1512–1520. Papers were read as follows:

The Disputation at Leipzig (1519)	John Homer Reed
Luther's "Babylonian Captivity"	Charles A. Beard
Sources of Luther's Address to the Nobility	Ralph B. Page
Hutten's Dialogues	James F. Dilworth
Mutian and Crotus Rubianus	Louise R. Loomis
Sources of Dollinger's "Die Reformation"	Stella Kramer
Alexander's Despatches	David L. Patterson, Jr.
The Centum Gravamina	Everett L. Thorndike

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Seminar in Historical Bibliography. Dr. Shotwell. 2 hours weekly. 12 members.

The work in this Seminar was of a twofold nature. At first historical bibliography was outlined, with practical tests in the use of the more important collections of sources. Then a systematic course in text-reading was developed, to introduce the students to the most important literary sources for European history from the later Roman Empire until the twelfth century. These texts were read by the whole class from mimeographed selections prepared beforehand, and criticised on the basis of historic evidence. Parallel with the text-reading, the following reports were read:

St. Jerome's Letters	Edna B. Jones
Boëthius and the Latest Representatives of the Antique Civilization	John Homer Reed
Claudian and Jordanes	Frances L. Warr
Orosius	Sarah H. Conant
Lives of St. Martin of Tours, and the Barbarian Conversions	Clara de L. Berg
Early Sources for Mediæval Knowledge of Antique Civilization	Henrietta Rodman
Gregory of Tours	Elizabeth McNeely
The Carolingian Renaissance	Martha Ornstein
Nithard, and later Frankish Chronicles	Evelyn Swan
The Rhine Monasteries in the Dark Age	Helen L. Cohen
Pseudo-Isidorian Decretals	Paul Radin
Early German Culture; Hroswitha and Adam of Bremen	Charlotte Wright

Seminars in American Colonial History

Preliminary Seminar in American Colonial History. Professor Osgood. 1 hour a week. 6 members.

The following papers were presented:

The Administration of Benjamin Fletcher as Governor of New York	Alice Davis
The Career of Edward Randolph in New England	Robert L. Schuyler
The Town of Southampton, Long Island	Frances A. Beckwith
The Colonial Charters	Leulah J. Judson
The Administration of Thomas Dongan as Governor of New York	George M. Lasell

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American Colonial History during the Seventeenth Century. Professor Osgood. 2 hours a week. 24 members.

All the members presented papers relating to the sources of early American history and to certain general aspects of the subject. The lectures dealt with the internal organization of the colonies during the seventeenth century.

Seminar in Later American History. Professor Dunning. 1 hour a week. 9 members.

The general subject of the year's work was the second administration of President Grant. Papers were read as follows:

Democratic Conventions, 1872	Joseph G. de R. Hamilton
Civil-Service Reform	" " "
Republican Conventions and Platforms	Austin B. Keep
Republican Government in South Carolina	" " "
Counting the Vote in Congress	Paul L. Haworth
The Whiskey Ring	" " "
The Credit Mobilier Affair	Mittie L. Porter
The Granger Movement	" "
The Tidal Wave of 1874	John Homer Reed
Sumner and the Civil Rights Act of 1875	" " "
Greenbacks and Resumption	Jaroslav Smetanka
Democratic Convention of 1876	" "
Republican Government in Arkansas	Ida M. Hollis
Republican Government in Louisiana	John C. Herbert
Republican Convention of 1876	John R. Todd

Seminar in Ancient History

Dr. Botsford. 1 hour a week. 2 members.

Essays for the Master's degree were prepared on the following subjects:

Cicero's Relations with Roman Society	Jennie Pomerene
The Tribunate of the Plebs at Rome in the Sixth Century of the City	Elizabeth C. Wood

Seminar in Political Philosophy

Professor Dunning. 1 hour a week.

Mr. John F. Bailey investigated the doctrines of the period of the Puritan Revolution in England in respect to the right of tyrannicide, and embodied the result of his researches in a paper on that subject

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Seminars in Constitutional Law

Preliminary Seminar in Constitutional Law. Professor Burgess. 2 hours a week. 15 members.

The following papers were presented:

The Constitution in Relation to Acquired Territory	Joseph A. A. Burnquist
The Constitutional Principles of Benjamin Harrison	Lawrence R. Cartwright
Constitutional Limitations upon the States in the Regulation of Commerce	Fred M. Deweese
The Trend of Decisions on the Sherman Anti-Trust Act	Frank H. Foss
Supremacy of United States Law over State Law	Claude W. Gibson
Constitutional Limitations upon the States in the Exercise of the Power of Eminent Domain	Albert C. Gillette
The Control of Interstate Commerce by the United States	Walter L. Glenney
Bills of Attainder and Ex-Post-Facto Laws	Charles G. Haines
Citizenship	Stanley M. Isaacs
Consular Jurisdiction in Oriental Countries	Henry M. Lewy
The Powers of Congress over the Territories	Lyle E. Mahan
The Federal Police Power	Henry Marx
The Jurisdiction of the United States Courts in the Territories	Clarence J. Novotny
Development of the Law Regulating Commerce under the Decisions of the Federal Courts	Jacob S. Schley
Citizenship of the United States	Chin Yung Yen

Advanced Seminar in Constitutional Law. Professor Burgess. 1 hour a week. 3 members.

The subject was the constitutional law of the commonwealths. The following papers were presented:

Virginia and the States Deriving their Constitutional Law from Virginia	Frank C. Baker
The States Formed from the Northwest Territory	Charles A. Beard
The New England States	Nelson P. Mead

Seminar in Administrative Law

Professor Goodnow. 1 hour a week. 15 members.

During the past year this Seminar was devoted to the study

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of cases upon the law of offices and extraordinary legal remedies. The work was confined to the study of the cases on appeal in the Appellate Division of the First Department of the State of New York, the material used being the appeal books of cases which were presented to that court. Papers were read as follows:

Mandamus as an Aid to Civil-Service Reform.	Louis J. TePoel
Interest in Mandamus Cases	James E. Finegan
The Scope of the Writ of Certiorari under the New York Code of Civil Procedure	Henry K. Heyman
Remedies in the Case of the Revocation of Fraudulent Appointments	Charles A. Dana
The Constitutional Limits of Administrative Discretion	Charles C. Spicer
Remedies for Illegal Removals	Clay Lawrence
The Necessary Degree of Interest in Certiorari Cases	Homer L. Collyer

SEMINAR IN DIPLOMACY AND INTERNATIONAL LAW

Professor J. B. Moore. 2 hours a week. 6 members.

The following papers were read:

Nationality	Charles A. Beard
The Development of the Laws of War	Walter P. Bordwell
The Monroe Doctrine	George H. Butler
Contraband	Egbert R. Cockrell
Japan and International Law	Rokunosuke Hamaguchi
United States Consular Jurisdiction and the Treaty Privileges of Citizens Residing or Trading in the Orient	Frank E. Hinckley

SEMINAR IN LEGAL HISTORY AND COMPARATIVE JURISPRUDENCE

Professor Munroe Smith. 1 hour a week. 5 members.

The work of the Seminar consisted in reading and discussing the titles on usufruct in Justinian's Digest, with some consideration of the modifications introduced in modern civil law and of the English rules governing life estates. The following papers were presented:

The German Theory of Warranty of Contract and the Liability, at English Law, of the Unauthorized Agent	Ralph J. Schwarz
Caveat Emptor	Edward Schuster

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SEMINARS IN POLITICAL ECONOMY AND FINANCE

Professor Seligman. 2 hours fortnightly. 18 members.

Mercantilism	Charles A. Beard
Adam Smith and the Transition in England	Norris A. Briscoe
Alexander Hamilton	Eugene E. Agger
Early American Writers on Protection	Catherine C. Eastman
Friedrich List	Thomas B. Moore
Carey	George G. Groat
Patten and Gunton	Percival Corn
The English Reaction	Harry B. Bennett
The Fiscal Principles of Municipal Water Service	David L. Wing
The Chinese Land Tax	Chin Yung Yen
Railway Accounts	Durward E. Burchell
Fiscal Theory of the Post-Office	Jerome B. Shoenfeld
War Financiering	Jiroshi Aburatani

In addition to presenting these papers, the same gentlemen, together with Messrs. Enoch M. Banks, Charles E. Stangeland, Allen B. Eaton, Everett B. Stackpole, and Guy E. Snider, made reports on the periodical economic literature of the various countries of the world.

Professor Clark. 2 hours fortnightly. 12 members.

The following papers were read:

Immigration	Charles E. Stangeland
The Theories of von Böhm-Bawerk	Thomas B. Moore
Socialism in Germany	Harry B. Bennett
Socialism in England	Frank C. Beard
Socialism in the United States	Catherine C. Eastman
Anarchism in the United States	Eugene E. Agger
The Policy of Trades Unions	Percival Corn
The Attitude of Trades Unions toward Governmental Regulation	Guy E. Snider
Systems of Arbitration and Conciliation	George G. Groat
Sliding Scales	Everett B. Stackpole
Social Experiments in Australia	Norris A. Briscoe
Trust Finance	David L. Wing

SEMINAR IN SOCIOLOGY AND STATISTICS

Professor Giddings. 14 members.

The meetings of the first half-year were devoted to a review of sociological theory, and to the reading and discussion of

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papers on the ethnic composition of the American people. On the former topic papers were read as follows:

Methods of Research	Warren H. Wilson
Analysis of Population	William P. Shriver
Analysis of Organization	Allen B. Eaton

On ethnic composition the following papers were read:

The Middle States	David L. Wing
The New England States	Iva L. Peters
The South Atlantic States	William C. Arnold
The North Central States	Alexander Lyons
The South Central States	James P. Lichtenberger
The Pacific States	Elsa G. Herzfeld

The second half-year was devoted to the reading and discussion of miscellaneous papers, as follows:

The Mormon People	George Coray
The Beginnings of Texas	Colby D. Hall
The Racial Purity of the Jews	Alexander Lyons
Freeport, Long Island	Pelham St. G. Bissell
The Social Effects of Famine in India	Alden H. Clark
The Social Pleasures of the East-Side Jews	Belle Meade

During the year the following persons have held University Fellowships in subjects falling under the jurisdiction of this Faculty: **Fellows**

1. ALLEN BARBER EATON Sociology
 Ph.B., Beloit College, 1899; A.M., Chicago University, 1902.
 Scholar in Sociology, Columbia University, 1902–03.
 Mr. Eaton attended the Seminars of Professors Giddings and Seligman. In the former he read a paper on the "Analysis of Organization." In the latter he participated in the discussions and assisted in reporting on periodical literature. He was principally engaged throughout the year in studying the labor organizations of New York City. He passed the examination for the doctorate on his subjects, May 25.

2. PAUL LELAND HAWORTH American History
 A.B., Indiana University, 1899; A.M., 1901.
 Scholar in History, Columbia University, 1902–03.

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Mr. Haworth attended Professor Dunning's Seminar in recent American history, reading papers on "Counting the Electoral Vote in Congress" and on "The Whiskey Ring." He worked also with Professor Osgood in American colonial history (History 32) and in recent English history (History 6), presenting one paper in each course.

He passed the examination for the doctorate on his subjects May 20.

3. RALPH BARTON PAGE European History

A.B., University of Toronto, 1897; A.M., 1901.

Scholar in History, Columbia University, 1902–03.

Mr. Page took part in the work of Professor Robinson's advanced Seminar, reading a paper on the "Sources of Luther's Address to the Nobility." He passed the examination on his subjects May 23.

4. JOHN HOMER REED American History

A.B., University of Minnesota, 1902–

Graduate student, Columbia University, 1902–03.

Mr. Reed attended Professor Osgood's courses on American colonial history (History 32) and on recent English history (History 6), presenting one paper in the former course and two in the latter. He also took part in Professor Dunning's Seminar on recent American history, reading papers on "The Tidal Wave of 1874" and "Sumner and the Civil Rights Act of 1875." In Professor Robinson's advanced Seminar he read a paper on "The Disputation at Leipzig (1519)" and in Dr. Shotwell's Seminar one on "Boëthius and the Latest Representatives of the Antique Civilization."

5. PRESERVED SMITH Schiff Fellow

Because of illness, Mr. Smith was able to complete only a part of the year's work.

6. CHARLES EMIL STANGELAND Economics

A.B., Augsburg Theological Seminary, 1898; A.M., University of Minnesota, 1901.

Mr. Stangeland took part in the Seminars of Professors Seligman and Clark. In the former he participated in the discussions and reported on periodical literature; in the latter he read a paper upon "Immigration." He devoted the greater part of his time to completing his dissertation on "Pre-Malthusian Theories of Population," which at the close of the academic year was nearly ready to print. He passed the examination on his subjects May 26.

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7. DAVID LAFORREST WING Statistics
B.S., Massachusetts Institute of Technology, 1898.
Mr. Wing attended the Seminars of Professors Giddings, Seligman, and Clark. In the Sociological Seminar he presented a paper on "The Ethnic Composition of the Middle States"; in the Economic Seminars he read papers on "The Fiscal Principles of Municipal Water Service" and on "Trust Finance." Under the direction of Professor Giddings he has been making a critical study of the methods of statistics as applied to sociological investigation.

Of the Studies in History, Economics, and Public Law, under the editorial management of Professor Seligman, there have appeared during the year eight numbers, as follows: **Publications**

Vol. XVIII. No. 2. Turgot and the Six Edicts.
By Robert P. Shepherd, Ph.D.
Vol. XVIII. No. 3. Hanover and Prussia.
By Guy S. Ford, Ph.D.
Vol. XIX. No. 1. Josiah Tucker, Economist.
By Walter E. Clark, Ph.D.
Vol. XIX. No. 2. The Labor Theory of Value in English Political Economy.
By Albert C. Whitaker, Ph.D.
Vol. XX. No. 1. The Office of Justice of the Peace in England.
By Charles A. Beard, Ph.D.
Vol. XX. No. 2. A History of Military Government in Newly Acquired Territory of the United States.
By David Yancey Thomas, Ph.D.
Vol. XXI. No. 1. Treaties, Their Making and Enforcement.
By Samuel B. Crandall.
Volume XXI. No. 2. The Sociology of a City Block.
By Thomas Jesse Jones, Ph.D.

There are also in press three additional monographs by Messrs. Capen, Moore, and Stangeland. This represents the largest yearly output since the inception of the Series. Over fifty separate works have now appeared in the Series, and the sales have increased to such an extent that it has become possible to afford substantial aid to the authors of especially expensive monographs.

The *Political Science Quarterly* completed with the year 1903 its eighteenth annual volume. Professor Dunning, who has held the position of managing editor for nine years, resigned it at the close of the year 1903, and Professor Munroe

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Smith, who directed this publication during the earlier years of its existence, has resumed the managing editorship.

Academy of Political Science

With the co-operation of the President of the University, a course of lectures on the practical problems of municipal administration, by gentlemen who have been connected with the various city departments, was arranged for under the auspices of the Academy of Political Science. These lectures were as follows:

February 26.	The Dock Department (Illustrated).	Hon. McDougall Hawkes.
March 4.	The Street-Cleaning Department (Illustrated).	Hon. James McG. Woodbury.
March 11.	The Police Department.	Gen. Francis V. Greene.
March 18.	The Fire Department.	Hon. Thomas Sturgis.
March 25.	The Department of Education.	Hon. C. C. Burlingham.
April 8.	The Tenement-House Department (Illustrated).	Hon. Robert W. DeForest.
April 15.	The Health Department (Illustrated).	Hon. Ernest Lederle.
April 22.	Bellevue and Allied Hospitals.	Hon. John S. Brannan.
April 29.	The Department of Charities (Illustrated).	Hon. Homer Folks.

These lectures were well attended, both by students and by outsiders.

In addition to these lectures the Academy of Political Science had two other public meetings, at one of which Mr. Lindsay, the Commissioner of Education of Porto Rico, gave a lecture on "The Economic Condition of Porto Rico." At the second meeting a lecture upon "British Rule in India" was given by the Anagarika Dharmapala.

Legislation

During the year the Faculty has taken the action shown below in the extracts from its minutes on matters of general University interest and importance:

(January 29, 1904)—*Resolved*, That the following changes in courses in European History be authorized:

The course on Historical Bibliography and Methods of Research, 2 hours first half-year, shall be delivered by Dr. Shotwell, replacing History 10.

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The course on Mediæval Historiography, 2 hours second half-year, shall be delivered in alternate years by Dr. Shotwell.

The course on Mediæval Institutions from the break-up of the Roman Empire to the thirteenth century, 2 hours in alternate years, shall be delivered by Dr. Shotwell, replacing History 12.

A course on European Culture from the opening of the twelfth century to the Council of Trent shall be delivered by Professor Robinson and Dr. Shotwell in alternate years, replacing History 13.

A course shall be delivered by Professor Robinson on Europe in the French Revolution, replacing History 14a and 14b.

Courses on Recent European History, 1815 to 1848, and on Contemporaneous European History shall be delivered in alternate years by Professor Sloane, replacing courses History 5 and History 30. A course on the History of Russia since Peter the Great, 2 hours first half-year, shall be delivered by Dr. Simkhovitch.

Resolved, That the following new courses in American History be authorized:

History 36, History of Spanish-America, Dr. Shepherd, 2 hours.

History 45, French and Spanish Colonization within the Territory of the United States, Dr. Shepherd.

History 46, Development of the West since 1803, Dr. Shepherd.

(March 9, 1904)—*Resolved*, That the following changes in the courses in Economics and Sociology be authorized:

Economics 3 shall be entitled Money and Banking and shall be given every year.

The alternating course now designated as Economics 3b, and entitled The Commercial Policy of the United States, shall be withdrawn.

Economics 13 shall be entitled Commerce and Commercial Policy.

Professor Seager shall be authorized to offer a new course entitled Problems of Industrial Organization, to be designated as Economics 31.

Sociology 17, entitled Theory of Statistics, shall be delivered by Professor H. L. Moore instead of Professor Giddings.

Sociology 19, entitled Economic Statistics, shall be given by Professor H. L. Moore instead of Professor Seager, and shall not be given in 1904–05 but in 1905–06 and in alternate years thereafter.

Resolved, That the following changes in courses on Roman Law and Comparative Jurisprudence be authorized:

The title of Jurisprudence 23, Comparative Jurisprudence, shall be so changed as to read Modern Civil Law of Western Europe.

Jurisprudence 29, Seminar in Legal History and Comparative Jurisprudence, shall be designated as Seminar in Roman Law.

The advanced Seminar in Comparative Jurisprudence shall be designated as Jurisprudence 30.

Resolved, That further changes in the courses in History and Political Philosophy be referred to the members of the historical group with power.

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During the past year the following persons, former students of the School of Political Science, have obtained first appointments or have been advanced to better positions. The list is undoubtedly far from complete; it includes such appointments only as have been brought to the attention of the Dean. The dates immediately following each name indicate the period of residence in the School.

Appointments

I. Educational Appointments

Paul Abelson, 1899–1901.	Teacher, De Witt Clinton High School, New York City.
Charles A. Beard, 1902–04, Curtis Fellow, 1902–03, Ph.D., 1904.	Lecturer in History, Columbia University.
Carl L. Becker, 1898–99, University Fellow, 1898–99.	Assistant Professor of European History, University of Kansas.
Harold M. Bowman, 1902–03, University Fellow, 1902–03, Ph.D., 1903.	Instructor in Law and Political Science, Tuck School of Commerce, Dartmouth University.
Edward W. Capen, 1898–1901, Ph.D., 1904.	Alumni Lecturer on Public Charities, Hartford Theological Seminary.[1]
Walter W. Cook, 1898–1900, A.M., 1899.	Professor of Law, University of Nebraska.
Walter E. Clark, 1899–1900, 1901–03, University Fellow, 1902–03, Ph.D., 1903.	Instructor in Philosophy, College of the City of New York.
Ellen S. Davison, 1899–1901.	Lecturer on History, Bryn Mawr College.
Alfred L. P. Dennis, 1896–99, Ph.D., 1901.	Assistant Professor of History, Chicago University.
Walter L. Fleming, 1900–02, University Fellow, 1901–02, Ph.D., 1904.	Associate Professor of History, University of West Virginia.
James W. Garner, 1900–02, University Fellow, 1900–01, Curtis Fellow, 1901–02, Ph.D., 1902.	Lecturer on History, Columbia University, 1902–03. Instructor in History, University of Pennsylvania, 1903.
Arthur C. Hall, 1894–95, University Fellow, 1894–95, Ph.D., 1901.	Instructor in Economics and Social Science, Princeton University, 1903–04. Professor of Economics in Kenyon College, 1904.

[1] Appointment of 1901, not included in previous list.

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PAUL L. HAWORTH, 1902–04, University Fellow, 1903–04, Cand. Ph.D.	Tutor in History, Teachers College, Columbia University.
ALVIN S. JOHNSON, 1898–1901, University Fellow, 1900–01, Ph.D., 1903.	Instructor in Economics, Columbia University.
THOMAS J. JONES, 1897–1901, University Fellow, 1900–01, Ph.D., 1904.	Head of Department of Sociology and History, Hampton Normal Institute, Va.
LEULAH J. JUDSON, 1903–04, A.M., 1904.	Lecturer on History, Woman's College, Oxford University, Ohio.
LOUISE R. LOOMIS, 1901–03, A.M., 1902, Cand. Ph.D.	Lecturer on History, Barnard College, Columbia University.
NEWTON D. MERENESS, 1895–96, 1898–99, University Fellow, 1898–99, Ph.D., 1901.	Assistant in American History, Cornell University. Interim Professor of History and Economics, Charleston College, S.C., 1902–03.
HENRY R. MUSSEY, 1901–03, University Fellow, 1901–02, Cand. Ph.D.	Instructor in Economics and Industry, New York University.
RALPH B. PAGE, 1902–04, University Fellow, 1903–04, Cand. Ph.D.	Instructor in History, Commercial High School, New York City.
HENRY G. PLUM, 1898–1900, University Fellow, 1898–1900, Cand. Ph.D.	Professor of European History, State Univ. of Iowa.
JAMES T. SHOTWELL, 1898–1900, University Fellow, 1899–1900, Ph.D., 1903.	Instructor in History, Columbia University.
Henry R. SPENCER, 1900–03, University Fellow, 1902–03, Cand. Ph.D.	Instructor in History and Political Science, Ohio State University.
EDWIN P. TANNER, 1897–1900, A.M., 1898, University Fellow, 1899–1900.	Instructor in History, Adelphi College, Brooklyn, N. Y.
DAVID Y. THOMAS, 1901–02, University Fellow, 1901–02, Ph.D., 1903.	Professor of History, Hendrix College, Arkansas.
STEPHEN, F. WESTON, 1890–93, Ph.D., 1903.	Professor of Philosophy and Political Science, and Dean, Antioch College, Ohio.

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II. Governmental Appointments.

Samuel B. Crandall, 1900–02, University Fellow, 1901–02, Ph.D., 1904.	Clerk, Bureau of Rolls, Department of State, Washington, D. C.
John F. Crowell, 1894–95, University Fellow, 1894–95, Ph.D., 1897.	Internal Commerce Expert, Bureau of Statistics, Department of Commerce and Labor, Washington, D. C.
John H. Dynes, 1896–98, A.M., 1897, University Fellow, 1897–98.	Special Agent, Bureau of Corporations, Department of Commerce and Labor, Washington, D. C.
Charles E. Edgerton, 1898–99.	Special Agent, Division of Statistics, Department of Agriculture, Washington, D. C.
Isaac A. Hourwich, 1891–92.	Special Agent, Bureau of the Census, Department of Commerce and Labor, Washington, D. C.
Isaac M. Rubinow, 1901–03.	Civil Service Commission, Washington, D. C.
Francis Walker, 1892–94, University Fellow, 1892–94, Ph.D., 1895.	Special Agent, Bureau of Corporations, Department of Commerce and Labor, Washington, D. C.

III. Miscellaneous Appointments.

Albert Britt, 1898–1901.	Assistant Editor of *Public Opinion*, New York.
Frederick S. Hall, 1895–98, University Fellow, 1896–97, Ph.D., 1898.	Assistant Secretary, City Club, New York City.
Wallace E. Miller, 1901–02.	Director of the Godman Guild, Columbus, Ohio.

In addition to his work as director of the Godman Guild, a social settlement, Mr. Miller has held an interim appointment during 1903–04 as assistant professor of Economics and Sociology in Ohio State University. Of former students of the School holding professorships, two have been drawn temporarily into the service of the Federal Government: Professor Max West of the Columbian University (Ph.D., Columbia, 1893), having served in the Treasury Department of Porto Rico during the past year; and Professor Walter F. Willcox of Cornell University (Ph.D., Columbia, 1891), having been appointed member of a committee to formulate plans for the thirteenth census.

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With the year 1904–05 the School of Political Science will have completed its first quarter of a century of existence. Beginning as a doubtful experiment, with only one example before it, viz., the École Libre des Sciences Politiques in Paris, and that example of recent establishment and itself still in the *stage of experiment*, this School has been sustained, through periods of depression and encouragement alike, by the Trustees and Presidents of the University, by its Faculty, and by a gradually increasing body of students, until now its graduates are holding many of the most important positions in the colleges and universities of the land from Maine to California and from Texas to Minnesota, and its publications are regarded as high authority throughout the civilized world. It is not too much to say that the Columbia University School of Political Science has been the chief force in the development of the widespread study of the political sciences, and of the great literary and scientific productivity in these sciences which have marked the educational history of the United States during the last twenty years.

The 25th Anniversary

In making these statements, it is not my purpose to call attention to the merits of the Faculty of this School or of any of its members. I will only say one thing illustrative of their devotion to the institution which they have undertaken to serve, and that is, that not a single resignation from this Faculty has occurred during the entire period of its existence, although many of its members have been called to positions of greater pecuniary advantage and higher titular grade in other universities.

There is, however, one suggestion which I have long contemplated making at this time. One name connected with the founding of this School—I might say the chief name—has been almost forgotten. It is not the name of a member of the Faculty, but of a member of the Board of Trustees of the University, Samuel B. Ruggles. Three members of the Board of Trustees secured the adoption of the resolution of June, 1880, which established the School of Political Science. They were Samuel B. Ruggles, Hamilton Fish, and Stephen P. Nash. Of the three, Mr. Ruggles

Samuel B. Ruggles

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took the leading part in this work. The recognition of the services of both Mr. Fish and Mr. Nash to the University is perpetuated by the attachment of their names to important professorships, one in the Faculty of Political Science and one in the Faculty of Law; but the long, faithful, and efficient services of Mr. Ruggles have not, as yet, any memorial to keep the appreciation of them alive in the minds of succeeding generations. I therefore venture to suggest to you, Sir, most respectfully, at this time, that a most gratifying recognition of the twenty-fifth anniversary of the School of Political Science would be the attachment of the name of Mr. Ruggles to one of the professorships within its organization.

Respectfully submitted,

JOHN W. BURGESS,

Dean.

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SCHOOL OF PHILOSOPHY

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor of presenting to you herewith the fourteenth annual report upon the activity of the Faculty of Philosophy, for the academic year ending June 30, 1904.

The report of the Registrar of the University, to which I would respectfully refer you, will be found to contain the details of attendance upon courses of instruction, seminars, and other exercises, which until last year were regularly included in the report of this Faculty.

As was the case last year, the growth of the School of Philosophy has been most gratifying. The Faculty comprised in 1903–04 37 professors and adjunct professors, and is the largest faculty body in the University, with the exception of the Faculty of Columbia College, which numbers 38. The total number of persons who have carried on work under the direction of this Faculty during 1903–04 has been 474. This is an increase of 77, or 16 per cent., over the attendance of 1902–03. (The increase of 1902–03 over 1901–02 was a little less than 10 per cent.) The percentage of primary registration under this Faculty is nearly the same as last year, being 409 out of 474, or 86.2 per cent., as against about 87 per cent. in 1902–03, and 80 per cent. in 1901–02. **Growth of the School**

It should be borne in mind that many of our students belong to the class of "partial time students," *i. e.*, of such

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as cannot by reason of teaching or other outside occupations devote all their time to the work for a degree. Many of these are among the best students that come to us; they are of mature age, know exactly their chief needs, and are least likely to waste their time or scatter their energies. The peculiar situation of Columbia University will always bring such persons to us in great numbers. By no means all of them expect to take a degree with us, though a large proportion do so expect, and all who are qualified by possession of the first degree to become candidates for a higher one are entered and regarded as candidates.

The following tables will show the attendance in as much detail as seems advisable here:

I. Primary Registration under the Faculty of Philosophy:

A. With all "subjects" under this Faculty:

1. Candidates for degrees, holding the bachelor's degree or its equivalent:

Men	201	Women	110	311

2. Special students:

a. Holding degree of Ph.D.	5	
b. In Dept. of Chinese, no degree	1	6
		317

B. With one or more "subjects" under other Faculties:

1. Philosophy and Political Science:

Men	61	Women	14	75

2. Philosophy and Pure Science:

Men	9	Women	8	17

Total 409

Total of men: 277, or 68 %.
Total of women: 132, or 32 %.
Total primary registration for 1902–03: 345. Increase: 64, or 18.5 %.

Of these 409 persons, 100 (73 men and 27 women) were registered in Teachers College as candidates for the "master's diploma" or "doctor's diploma," and under this Faculty as candidates for the degree of A.M. or Ph.D., with the major subject in Education.

In the Report presented last year, the figures of primary

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registration under this Faculty excluded 9 persons who, though regularly pursuing courses leading to degrees, were holding teaching positions in the University. For the sake of greater uniformity with the statistics presented in the Registrar's Report, it has seemed advisable this year to include such persons in my own statistics, and this has accordingly been done. The number of such persons has been 23, divided by rank as follows:

Assistants	13
Tutors (including teachers in the Horace Mann School)	3
Instructors	6
Lecturers	1
	23

This departure from the plan of enumeration followed last year produces a very slight inexactness in the statement of the *relative* attendance of the two years, but it may well be disregarded.

The Registrar's figures for the Faculty of Philosophy include three students of music, of whom no account has been taken above.

II. Secondary registration under the Faculty of Philosophy:

1. Political Science and Philosophy:
 Men 23 Women..... 13 — 36
2. Pure Science and Philosophy:
 Men..... 12 Women 5 — 17
3. Teachers College and Philosophy (*i. e.*, persons *not* candidates for degrees under this Faculty):
 Men..... 5 Women 7 — 12

Total..... 65

Total of men, 40, or 61.5 %.
Total of women, 25, or 38.5 %.
Secondary registration for 1902–03: 52. Increase: 13, or 25 %.

Summary for 1903–04:

	Men	Women	Total
I. Primary registration	277	132	409
II. Secondary registration	40	25	65
Total	317	157	474
	or 67%	or 33%	

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Various theological seminaries situated in or near New York have sent us students, under the agreements in force between Columbia University and themselves, as follows:

	1902–03	1903–04
Union Theological Seminary	13	27
General Theological Seminary	6	6
Jewish Theological Seminary	4	7
Drew Theological Seminary, Madison, N. J.	2	5
St. Joseph's Theological Seminary, Dunwoodie, N. Y.	4	4
Total	29	49

The Theological Seminaries

The steady increase in the number of such students is gratifying as showing the spread of our influence. It brings with it some difficulties of administration which, though not serious, call for careful treatment. These are chiefly in the way of making sure that the work done at the seminaries which is allowed to be counted towards our own higher degrees is in every case fully equivalent in amount and grade to similar work done under our own instruction. The gradual raising of our standards for the higher degrees makes imperative some system of supervision more exact than that now in vogue. A beginning was made several years ago, when a statement was drawn up and printed, giving in detail the requirements of the three departments under this Faculty (Philosophy, Semitic Languages, and Greek) which accept work done at one of the seminaries as meeting in part our demands for a degree. The further progress which is desirable will naturally be made along the same lines.

The Registrar's report includes a statement of the degrees held by the 409 students primarily registered under the Faculty of Philosophy, and of the institutions by which these degrees were conferred.

Auditors

Auditors to the number of 20 were enrolled for courses given under direction of this Faculty; of these 16 were women. The distribution by departments is given in the Registrar's Report.

In 1902–03 the number of auditors attending was 24. I am still of the opinion expressed in my report of last year,

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that we receive quite as many auditors as is desirable, unless the distinction between them and "special students" be wiped out—a point to which I shall draw your attention later.

The several departments of this Faculty carried on during 1903–04 the number of courses shown in the following table, counting towards the higher degrees:

Anthropology	7	Latin (and Archaeology)	8
Chinese	9	Philosophy	16
Comparative Literature	6	Psychology	7
English	11	Romance Languages	12
Germanic Languages	12	Semitic Languages	15
Greek (and Archæology)	6		

The courses in Education, being given in the report of the Dean of Teachers College, are omitted here.

The election of minor subjects under the Faculty of Philosophy by candidates whose major subjects were taken under other Faculties (see figures on p. 148) is shown by the following table:

Anthropology	3	Greek	6
Chinese	1	Latin	1
Comparative Literature	2	Philosophy	11
Education	18	Psychology	6
English	11	Romance Languages	4
Germanic Languages	4		

The University Fellows appointed for 1904–05 under this Faculty are distributed by departments as follows:

Fellows and Scholars

Comparative Literature (Honorary)	1	Germanic Languages	1
English	1	Philosophy	1
English (Proudfit)	1	Psychology	1
		Romance Languages	2

University Scholarships for 1904–05 have been assigned to departments under this Faculty, as follows:

MEN

English	6	Philosophy	1
Germanic	1	Psychology	1
Oriental Languages	1	Romance Languages	1

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WOMEN

Greek (Curtis)	1	English (Curtis)	1

The qualifications of the applicants in English were so extremely good that an unusual proportion of scholarships was awarded to that department.

During the year nine gentlemen have held fellowships under this Faculty: three have been pursuing their studies abroad, one of these as International Fellow, the other two under special license. The work carried on by these nine has been in the main as follows:

STATEMENT OF WORK OF UNIVERSITY FELLOWS UNDER THE FACULTY OF PHILOSOPHY, 1903–04

1. WALTER WHIPPLE ARNOLD . . . Drisler Fellow in Classical Philology

Mr. Arnold received special permission from the University Council to spend the year of tenure of this fellowship in work at Rome, at the American School of Classical Studies, under the direction of Professor Egbert of Columbia University. His time has been chiefly spent in Rome itself, but he has made a number of journeys for archæological and epigraphical purposes, gaining thereby valuable experience in field work. A month's stay in Naples was devoted to a study of the topography of that region, and to careful examination of the collections in the Museo Nazionale; after this ten days were spent at Pompeii, and a fortnight again at Naples.

During the session of the School in Rome, Mr. Arnold read papers prepared by him on the following topics: *Latores et tegulæ; Diplomata militaria*, with special reference to the sites where were posted the original bronze tablets from which the *diplomata* were copied.

2. MARIO EMILIO COSENZA . . . Latin

The privilege of residence in Italy that was given to Mr. Arnold was extended also to Mr. Cosenza. The course of study followed by the latter gentleman was nearly identical with Mr. Arnold's, but Mr. Cosenza made more of a specialty of manuscripts than Mr. Arnold had done, visiting Siena and Florence for this purpose. In connection with the epigraphical work at the School he prepared the following papers: On *Fistulæ plumbeæ;* On the *Fasti Capitolini;* On the *Cursus Honorum* after Constantine.

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3. WILLIAM HARPER DAVIS . . . Psychology

Mr. Davis's major subject is psychology, his minors anthropology and zoölogy. He has prosecuted, at the New York Zoölogical Park, elaborate studies in the comparative psychology of animals, especially of the anthropoid apes. The courtesy of Director Hornaday of the Zoölogical Park procured for him many unusual privileges. At the University Mr. Davis has read three papers before the Psychological Seminar: On the History and Administration of Psychological Tests as Made in the Columbia Laboratories; An Historical Survey of our Knowledge of the Psychology of the Primates; On the Methods and Results of Tests Made upon One Hundred American Men of Science. He has delivered two lectures before the class in Psychology 8, and in connection with his second minor subject, zoölogy, has taken part in the exercises of the Zoölogical Seminar. Throughout the second half-year, he has, with the permission of the President of this University, acted as Non-Resident Instructor in Psychology at Lehigh University, giving a two-hours' course weekly in that subject. He has now received an appointment as Instructor in Philosophy and Psychology at Lehigh University, and has also been appointed Secretary of the Section of General Psychology at the International Congress of Arts and Sciences at St. Louis.

4. HARRY MOREHOUSE GAGE . . . Philosophy

Mr. Gage's work has been carried on in philosophy, ethics, analytical psychology, and comparative neurology. During the year he has presented to the Philosophical Seminar reports and papers on the following topics: Aristotle, Berkeley, Hume; The Category of Individuality. In psychology he has made studies on: Stages of Mental Development and their Effect on Evolution; Pleasure and Pain in Evolution. Mr. Gage has also made during the year a special study of the Platonic philosophy, embodying the results of his work in a paper entitled "Platonic Realism," which was presented and accepted as the essay required of candidates for the degree of Master of Arts. This degree was conferred upon him at Commencement.

5. HAROLD CLARKE GODDARD . . . English

Mr. Goddard has carried on work in the English language and literature as major and first minor subject, and in philosophy as second minor subject, throughout the year. In connection with the former courses he has prepared and read papers on: The Use of Color in Chaucer's *Knight's Tale;* The Relation between the Style and the Philosophy of John Locke.

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The greater portion of Mr. Goddard's time has been spent in the elaboration of his dissertation for the doctor's degree, the title of which is, "Studies in New England Transcendentalism."

6. WILLIAM FREDERIC HAUHART . . . Germanic Languages

Mr. Hauhart's registered subjects are: Germanic languages as major and first minor, and English as second minor. During the year, he has prepared and read before the Germanic Seminar two papers: A Bibliography of the Hildebrandslied, in connection with which a full card-catalogue of the bibliography was prepared for the use of the Seminar, and a discussion of the bibliographical material was given before the members; and Faust as Humanist. Before the Pro-Seminar in German Literature, four papers on Lessing's life and works, and three on Goethe, were prepared and read; and in connection with the work in comparative literature a lecture on "The Life and Works of Vida" was delivered. From April 18 to May 7 Mr. Hauhart, with the permission of President Butler, served as Acting Instructor in German at Rutgers College.

7. STEPHEN HERBERT LANGDON . . . Semitic Languages

Mr. Langdon, whose major and first minor subjects were Semitics, and second minor Greek, has studied especially the southern and western branches of Semitic language and civilization, under Professor Gottheil's direction. In connection therewith he has made an investigation of Punic inscriptions with the intention of reconstructing the ideas of sacrifice prevailing in ancient Carthage. His paper on this subject is to appear shortly in the *Journal of Biblical Literature*.

He has also investigated the remains of early Sumerian civilization from the most archaic inscriptions of about 6000 B.C. to about 2800 B.C., under the direction of Professor Prince.

With Professor Francis Brown at the Union Theological Seminary Mr. Langdon has carried on work in the historical sources of the period of the Jewish Exile, 586–445 B.C.; the results are soon to be published under the title "Universalism and Salvation in the Second and Third Isaiahs."

As dissertation for the degree of Doctor of Philosophy, Mr. Langdon edited and translated a series of building-inscriptions of the Neo-Babylonian period. The degree was conferred upon him at Commencement. He has been appointed to the International Fellowship for study in France, and expects to spend the coming year in Paris, at work among the unrivalled facilities offered by the Bibliothèque Nationale and the Louvre.

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8. FREDERICK CURRY OSTRANDER . . . International Fellow for Study in France.

Mr. Ostrander arrived in France about July 1, 1903, and spent three months in Paris and in Neuchâtel, Switzerland, perfecting his command of spoken French. He returned to Paris early in October, and spent the remainder of his year of the fellowship in study there, following courses in the languages and literatures of France and Spain, in late Latin, and in the comparative philology of the Romance languages, at the Ecole des Hautes Etudes, the Ecole des Chartes, the Sorbonne (Faculté des Lettres), and the Collège de France. In connection with his work at the first-named institution, he read a paper on a recent publication of Menéndez Pidal, and made a special study of the language and versification of three of the French MSS. of the Légende de Saint Grégoire. He has also made special researches at the Bibliothèque Nationale in continuation of the study of an Old French MS. copied last year at Columbia University, which he expects to publish at some later date.

9. STANLEY KIDDER WILSON . . . Proudfit Fellow in Letters.

Mr. Wilson has followed courses in English language and literature and in philosophy. In connection with these he has presented the following papers and reports: Variety in the Eighteenth Century Couplet; The First Three Miscellanies; The Dryden-Pope Heroic Verse Compared and Contrasted with the Usage of Keats in the *Lamia;* The Renascence of Journet; Wilhelm Bolle: Die gedruckten englischen Liederbücher bis 1600; On the Philosophy of John Locke (two papers); Berkeley's Doctrine of the External World; The Scepticism of Hume.

Degrees

Of the whole number of 160 degrees of Master of Arts conferred during 1903–04, 78 were bestowed upon persons whose major subjects had been taken under this Faculty. These were divided among the departments as follows:

Anthropology	2	Germanic Languages	5
Chinese	1	Latin	4
Classical Archæology	1	Philosophy	6
Comparative Literature	1	Psychology	1
Education	26	Romance Languages	3
English	27	Semitic Languages	1

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Out of 28 Doctors of Philosophy created during 1903–04, 9 had major subjects under this Faculty:

Anthropology	1	Philosophy	2
Education	1	Psychology	1
English	1	Romance Languages	1
Greek	1	Semitic Languages	1

Of these Masters of Arts, seven held University Scholarships and one a University Fellowship during 1903–04; of the Doctors of Philosophy, one held a Fellowship in 1903–04, and four had held fellowships in previous years.

The work of instruction and investigation under this Faculty has proceeded without interruption or unusual incident. Fortunately, we have been spared all losses by death. Two members of the Faculty have been absent on leave: Professor Egbert, acting as Annual Professor at the American School of Classical Studies in Rome; and Professor Woodberry, who has now severed his connection with the University.

New Appointments

The Faculty has been greatly strengthened by the appointments to professorships recently made by the Trustees, and the coming year may confidently be expected to show a marked advance in both extent and variety of opportunity offered the students under its care. With the coming of Professor Fletcher, the Department of Comparative Literature will become primarily a graduate department, and its officers will have seats in this Faculty only. The youngest of the departments—Chinese—has again demonstrated its vigor and ambition by the successful conduct of numerous courses, to which none but duly registered students were admitted, the total number of such being 10, of whom 8 were actually candidates for degrees. One of these, a native of China and primarily registered under the Faculty of Political Science, has occupied himself with such researches in political science as can be pursued on the basis of the Chinese literature on that subject. The collection of Chinese works in the Library, already large, has received important additions; and the great Chinese Cyclopædia, consisting of more than 5000 Chinese volumes, has been rebound in 1672 volumes.

Such Faculty legislation as calls for mention here has con-

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cerned the amendment and more effective administration of the regulations governing the award of the higher degrees. In my Report of last year I mentioned certain questions which had been brought up in meetings of the Faculty, and made a special order for the first meeting in the autumn of 1903. These have now received exhaustive discussion; some of them have been settled, for the present at least, while others have seemed incapable of satisfactory settlement until the policy of the University Council in regard to the whole subject of the higher degrees has been more definitely fixed. The resolutions of this Faculty that became effective by subsequent vote of the University Council were these: One requiring that the examinations to test the ability of candidates under this Faculty for the doctor's degree to read Latin, French, and German be held at least one academic year before the candidate may come up for the degree; and others allowing philosophy, psychology, and anthropology to be counted each as the equivalent of a major and one minor subject, and dropping logic from the list of separate minor subjects. A resolution designed to allow a candidate, by special vote of the Faculty in each case, to choose all his subjects under one department, was amended by the Committee on Higher Degrees so that such permission might be given only by that Committee, and in this form was accepted by the Council. The amendment seems to me a distinct improvement, as likely to secure the desired result without establishing a precedent from which it might be difficult, although very desirable, to depart. The Faculty further voted to request the Council to amend the regulations for the degree of Doctor of Philosophy, so that in all but the most exceptional cases (and then only by special vote of the Faculty or Faculties concerned) three years of graduate study should be obligatory,—the regulation now in force prescribing two years as minimum, with a statement that three are usually necessary. This was not accepted by the Council. Other resolutions, not requiring adoption by the Council to become effective, authorized the Dean to add suitable persons, not necessarily members of this Faculty or even of this University, to the committees of examination for the

Faculty Legislation

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doctor's degree, and divided the previously existing Examination-Group A: Philosophy, Psychology, Anthropology and Education, into two by constituting Education a separate group.

Conduct of Examinations

A very marked improvement in the method of conducting the oral examinations for the doctor's degree has been attained. At none of the nine examinations held was the number of professors present and voting in favor of passing the candidate less than seven, so that recommendation for the degree proceeded in every case from much more than a majority of the whole "examination-group." In so large a faculty as ours it has, unfortunately, been found entirely impracticable to secure the attendance of a satisfactory proportion of the whole membership at such examinations, though various means to this end have been tried. With the constant development of the several departments or divisions, the need for the attendance of the Faculty as a whole, or even in a majority, becomes less.

"Divisional System"

A further year of trial of the "divisional system" has confirmed my previous opinion of its advantages; and no corresponding disadvantages, such as undue loss of departmental independence, or interference with the prerogatives of the Faculty as a whole, have become apparent to me. So far as I can observe, the interest of the younger members of the teaching staff has been decidedly stimulated, and the ease and efficacy of administration greatly increased. This is particularly true of the division with which I am personally connected, that of Classical Philology, in which the new organization gives a ready means of settling numerous questions that had previously offered many difficulties. The part of our work which properly falls under the jurisdiction of this Faculty—that is, the observation and guidance of graduate students—is in particular made much more satisfactory. Five stated meetings of the Division are held during each academic year; all are fully attended, by the youngest as well as the older instructors, and questions concerning the work of both departments—Latin and Greek—receive careful and detailed discussion. A visible result is to be found in the recently

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adopted "cycle-system" of graduate courses, set forth in the circular of the Division issued during the spring of this year. The work of the two departments has been much better co-ordinated, and the regulations for the higher degrees depending on them have been made both severer and juster than could well have been done under the former system.

Respectfully submitted,

EDWARD DELAVAN PERRY,
Dean.

June 24, 1904

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SCHOOL OF PURE SCIENCE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor to submit the twelfth annual report on the work of the Faculty of Pure Science. This report refers to the academic year ending June 30, 1904.

Statistics of Attendance

The statistics of attendance of the School of Pure Science are summarized in the following statement. For details with respect to the School as a whole and with respect to the departments therein, reference is made to the report of the Registrar of the University. The figures given below apply solely to those students who pursued graduate work in the School. They show an increase of about 22 per cent. in the aggregate over the corresponding figures of the preceding year, and an increase of about 27 per cent. in the primary registration of the School.

Number of students primarily registered under the Faculty of Pure Science:

Candidates for higher degrees	102	
Students not candidates for degrees	5	
		107

Number of students primarily registered under other Faculties of the University:

Candidates for higher degrees from—

College of Physicians and Surgeons	24	
Schools of Applied Science	13	
School of Philosophy	5	
Teachers College	12	
		54

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The total number of students receiving instruction and pursuing research in the School during the year was, therefore, 161, or 29 more than during the preceding year.

The degree of Doctor of Philosophy was conferred on eight candidates, and the degree of Master of Arts was conferred on twenty-four candidates during the year. Of the latter candidates, two from the College of Physicians and Surgeons and four from the Schools of Applied Science attained the Master's degree under Rule 10 governing the higher degrees.

Summary of Degrees Awarded

For the candidates in question the average interval between the time of attaining a first degree and the time of attaining a higher degree is 5.9 years for the Doctors and 5.5 years for the Masters; the longest and shortest intervals being respectively 11 and 3 years for the former and 25 and 1 years for the latter.

The "Barnard Fellowship for Encouraging Scientific Research" has been held during the year by Mr. William Campbell, Ph.D., Columbia University, 1903. Dr. Campbell has continued his admirable researches on the physical properties of metals and alloys with a degree of success which has won the highest commendations from experts here and abroad. A mere summary of his work of the year would require too much space here. Suffice it to say that he has published and has in press several papers; that he has communicated the results of his work to several scientific societies; that he has received the Shaw Medal from the Society of Chemical Industry; that he has given a course of lectures on European geology under the auspices of the Department of Geology, and a course on alloys and metallography under the auspices of the Department of Metallurgy. The Carnegie Institution has given him a grant in aid of further researches, and the Department of Metallurgy has secured his services as a member of its teaching staff. He has also been reappointed Barnard Fellow for the ensuing year.

Barnard and John Tyndall Fellows

The "John Tyndall Fellowship for the Encouragement of Research in Physics" has been held during the year by Dr. Frank Leo Tufts, of the staff of the Department of Physics.

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Dr. Tufts has been a student during the year at Göttingen and at Paris, and he has published two papers on the conduction of electricity in flames. He will return to the University to resume his regular duties at the beginning of the next academic year.

Work of University Fellows

Five candidates for the doctorate degree held University Fellowships in the School during the year.

Mr. Leon Oliver Beatty, A.B., M.S., Fellow in Chemistry, who had shown much promise as a University Scholar during the preceding year, was forced by reason of illness to withdraw from the University early in the present year.

Mr. Frederick Columbus Blake, Ph.B., Fellow in Physics, has made commendable progress in the studies of his choice, and he has already taken up as a subject for a dissertation an investigation of the energy involved in the propagation of electric waves and of the means of detection and measurement of such waves.

Mr. William Titus Horne, B.S., Fellow in Botany, has been engaged especially during the year in investigations in plant pathology, under the direction of Professor Earle of the Botanical Garden staff. His abilities have led to his appointment as assistant plant pathologist at the new Experiment Station in Cuba. It is expected, however, that he will ultimately return to the University to complete requirements for the doctorate.

Mr. Bert Russell, A.M., Fellow in Physiological Chemistry, in addition to the pursuit of regular course work has completed some valuable researches in collaboration with Professor Gies.

Mr. Ira A. Williams, M.S., Fellow in Geology, has done excellent work, mainly in the inorganic field of geology, his minors being metallurgy and mining. He has attained the degree of A.M., his essay being regarded by the Department as worthy of publication in the current journals for geological research.

Mr. Naohidé Yatsu, Fellow in Zoölogy, who comes to Columbia from the University of Tokyo, has maintained the reputation for work of uniform excellence won by him last

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year. In addition to two technical papers published by him during the year, his admirable account of Japanese education and of the University of Tokyo, which appeared in the *Popular Science Monthly*, is worthy of mention here.

Work of University Scholars

There were seven University Scholars in the School during the year, namely:

CHARLES THOMAS BRUES, M.S.,	*Zoölogy*,
JULES CATHERINET, Licencié-es-sciences,	*Geology*,
LOUIS HUSSAKOF, B.S.,	*Zoölogy*,
LOUIS G. MICHAEL, B.S.,	*Mineralogy*,
CHARLES R. STOCKARD, M.S.,	*Zoölogy*,
CAMILLE AUGUSTE TOUSSAINT, A.B.,	*Mathematics*,
FRANK HOWARD WOLCOTT, B.S.,	*Chemistry*.

Of these, Messrs. Catherinet and Toussaint attained the Master's degree and will probably continue work for the doctorate.

Mr. Brues, who was a University Fellow last year, has continued work on his dissertation, mentioned in a previous report. In this work he has been signally aided by the staff and by the resources of the American Museum of Natural History.

Mr. Hussakof, in addition to his regular work, has taken up studies on the ecology of termites and on the relationships of the Arthrodire "fishes."

Mr. Michael has made commendable progress in the studies of his choice, and is recommended by the Department of Mineralogy for the position of assistant for the ensuing year.

Mr. Stockard, while maintaining his course work, has made a six-weeks' field search in Louisiana for zoölogical material. This field work was carried on through aid from the Dyckman fund. Mr. Stockard has been awarded the John D. Jones Scholarship for 1904.

Mr. Wolcott was obliged to withdraw from the University early in the year by reason of illness.

A partial record of the publications of the members of the departments of the School will be found in the *University*

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Quarterly for March, 1904. Publications and investigations in progress are also outlined, to some extent, in the current numbers of that journal. But a much more complete view of the scientific activities of the departments is obtained from the departmental reports to the Dean. These reveal a year of great fertility and productivity. A mere catalogue of titles of published papers, dissertations, monographs, text-books, reports, and semi-popular lectures would require too much space here. Many important investigations, ranging from anatomy and astronomy through botany, geology, and physics up to zoölogy, have been completed or undertaken during the year. As indications solely of these activities the Dean would note the novel biochemical researches of Professor Gies and his collaborators; the promising investigations of Dr. Davis and others in the physics of the ether; and the remarkable researches of Professor Calkins on the rôle of the protozoa in the disease smallpox.

Publications and Investigations

It may be noted, also, in this connection, that the School and the University have been honored by the American Academy of Arts and Sciences by the bestowal of the Rumford Medal on Professor E. L. Nichols for his capital researches on the pressure of light radiation.

The spirit of hearty co-operation which leads members of the School to take an active interest in the work of other scientific organizations has proved very fruitful in the past decade. One of the most noteworthy results of this interest is seen in the development of the American Mathematical Society, which originated at Columbia and owes its gratifying prosperity in a large degree to the indefatigable labors of Professors Fiske and Cole. Co-operation with the American Museum of Natural History, the New York Botanical Garden, the Zoölogical Park, and the New York Academy of Sciences has led also to great mutual benefits. And it is now a source of pleasure to record the establishment of additional organizations with which the School may hope to co-operate advantageously. These are the Desert Botanical Laboratory, established by the Carnegie Institu-

Co-operation with Local and National Scientific Organizations

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tion at Tucson, Arizona; the Tropical Botanical Station established by the New York Botanical Garden at Cinchona, Jamaica; the Laboratory for Experimental Research in Biology, of the Carnegie Institution, dedicated recently at Cold Spring Harbor, N. Y.; and the *Journal for Experimental Zoölogy*.

Departmental Accessions and Needs

The Departments of Chemistry, Mineralogy, and Physics report important accessions in the way of materials, specimens, and apparatus acquired through gifts and purchase. The Departments of Mechanics and Physics have been able also to construct in their shops some novel forms of apparatus for measuring the acceleration of gravity and for multiplex telegraphy.

The Departments of Chemistry, Mechanics, and Physics again report a serious lack of laboratory accommodations, especially for advanced work. It is to be hoped that the new buildings under way may soon relieve in some measure this pressing need.

Faculty Legislation

The School of Pure Science was established at the beginning of the academic year 1892–93. "The object of the School," as stated by President Low in his report for that year, "is to encourage scientific research." To this end, the departments of the School of Mines and of the College of Physicians and Surgeons which sought to emphasize the research side of their work, along with some new departments established about the same time, were combined to form the Faculty of Pure Science. But the terms pure science and applied science, which came to be adopted naturally at the time in question, were not intended to be used in any invidious sense. "No attempt has been made," to quote again from President Low's report, "to define the point at which pure science stops and applied science begins." Nevertheless, the antithesis suggested by the two terms, while serving a useful administrative purpose, has proved somewhat inimical to the higher interests of science in the University. To the outside world we have presented the anomaly of having two different faculties with close interrelations conducting research work leading to the higher degrees. Moreover, the scientific progress of the

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times, instead of intensifying the old notion of necessary distinctions between theory and practice, tends only to obliterate all such distinctions. The search for a line of demarcation between pure science and applied science has proved to be as futile as the search for that other imaginary line which has been held to separate studies leading inevitably to culture from those leading inevitably to professionalism. Furthermore, quite independently of academic requirements, it has come about that the ablest workers in applied science are also investigators to a greater or less extent. Those who lack the spirit of investigation must be classed amongst the mediocre and the unprogressive. Our administrative terminology, therefore, seemed to imply an unjust estimate of the work of our eminent colleagues in the Schools of Applied Science.

These reasons, as well as others of an administrative kind that need not be mentioned here, have led the Dean for several years to look forward to a consolidation of the graduate work of the two Faculties under the Faculty of Pure Science. Happily, the scientific spirit of co-operation, so characteristic of our age and so strongly developed at Columbia, has worked directly towards this desired end. Near the close of this academic year, the subject was formally presented to the Faculties concerned and met with unanimous approval from each of them. At a subsequent meeting of the Trustees, the action of the Faculties was ratified, and the unification of the graduate and the research work in the mathematical, physical, natural, and engineering sciences under the Faculty of Pure Science was made complete by the assignment of seats in that Faculty to the heads of the Departments of Civil and Sanitary Engineering, Electrical Engineering, Mechanical Engineering, Metallurgy, and Mining.

Very respectfully submitted,

R. S. WOODWARD,

Dean.

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BARNARD COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University in the City of New York,

SIR:

I have the honor to submit the following report upon the condition of Barnard College at the close of its fifteenth year of existence, June 30, 1904.

Registration

The registration shows an increase of 55 students over that of the preceding year, which is considerably above the normal growth. This change is most noticeable in the size of the Senior class, which graduated 80 students as compared with a class of 47 a year ago. This is much the largest absolute increase that has ever been known in the history of the College. Only twice has an equally large relative growth in the graduating class taken place; once in 1895, when the number more than doubled, changing from 8 to 18; and again in 1900, when the number changed from 21 to 39. In these cases the absolute increase was 10 and 18 respectively, as compared with this year's increase of 33. This growth in numbers is indeed pleasing, because it has been attained under the highest exactions in scholarship. A growth which in any way emanated from lower entrance requirements or lower college standards would mean a loss of academic honor to be recorded with a shame as deep as is the pride called forth by the present statistics.

The geographic distribution of patronage has remained much the same as in the past; it will probably be extended

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very little until proper dormitory accommodations are provided. This remains the pressing need of the College, as was reported a year ago. Now that business conditions promise to be more favorable, we may hope that so urgent a need will not go into the records of another year unsatisfied.

Dormitory

In spite of this lack of a college residence, great advance has been made in unity of feeling through the newly developed out-of-door life of the students. By special efforts of certain Trustees, enough money was raised during the summer of 1903 to fence in and improve one third of Milbank Quadrangle. This is laid out in two grades. Upon the lower grade, nearest the College buildings, are three tennis courts and a basket-ball court. Upon the terrace overlooking these courts is a garden attractively arranged with walks, shrubs, and garden seats. Here study, rest, and recreation have gone on in the charming manner so familiar in country college life, but new to our city students. The academic conditions at Barnard College have always been good; this out-of-door life is adding much to the buoyancy of spirits and good health of the students; and we hope that regular supervision of the physical development may soon be not only supplied, but prescribed for all. This will mark a long step forward in college well-being.

Milbank Quadrangle

The readjustment of courses in the Departments of Chemistry and Physics has brought about most satisfactory results. These sciences have never obtained the general patronage which their important relation to a woman's home life demands. It seems as if the attainment of a wider interest in them is at hand. Mrs. Martha T. Fiske-Collord has continued her warm interest in these departments, providing early in the year for a ventilating plant for the laboratories in Fiske Hall, and recently for a complete outfit of acoustic apparatus. We now need good scientific departmental libraries.

Scientific Departments

The Barnard Botanical Club continues its active and generous interest in the Department whose privileges its members once shared. A number of framed photographs of botanical subjects were recently given by the Club and hung

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along the halls connecting the departmental laboratories. These photographs were taken by Dr. MacDougal for the Carnegie Institution, and reprints were obtained for the Club through his courtesy.

The Ella Weed Reading-Room has been placed under the supervision of the Librarian of Columbia University, and its efficiency has been greatly enhanced by this new and skilled direction. The pressure upon the resources of the Reading-Room this year has been overwhelming. There have been neither books enough for reference nor space to use advantageously the books on hand. It is therefore with special pleasure that I report the great addition to our library, both of books and of space. **Ella Weed Reading-Room**

An anonymous friend has given $600 to equip an additional room for reference purposes. The Class of 1903, under the direction of Mrs. Annie Nathan Meyer, raised $1200 for books, besides enlisting the interest of the donor mentioned above. It is therefore in the name of the Class of 1903 that we receive this large extension of library facilities. Not only will the students be greatly benefited by the larger reference opportunities, but the Columbia Library will be relieved of much congestion by not being forced to provide for our younger students. We hope ultimately to have in our own reading-room all necessary reference books, except the rare and expensive ones which are used in advanced courses.

The extension of courses in anthropology, philosophy, and psychology, which went into effect this year, has been keenly appreciated by the whole student body. The election of courses for the coming year reveals the enthusiasm of the students in more reliable terms than mere individual statement of appreciation can express. It also shows how serious a deterrent to free election of work arises from the necessity of attendance upon courses with men. The students look with no favor upon even the slightest coeducational practice, whatever may be their theory upon the subject. **The Curriculum**

Further expansion of the curriculum is desirable at many points, and the lack of various lines of work is deeply and consciously felt by the student body. History of art, do-

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mestic and sanitary chemistry, physical education, public and personal hygiene, and voice-training are not provided for in any way; and these subjects touch every woman's daily life. Such omissions must not be allowed to exist long. There are other courses, as yet unprovided for, which are needed by large numbers of women to whom practical philanthropy will be a profession. I refer to the phases of law and government which are necessary to the licence and factory inspector, to the settlement worker, and to the wealthy woman of public spirit. Surely such courses are as good mental discipline and as truly cultural as are our courses in language or literature, history, or economics.

Summary of Present Needs

The summary of needs for the coming year is easy to make; and with the generous support which the College has had, they should be easy to meet. The order of enumeration expresses my estimate of their relative importance to the immediate symmetrical development of the College. First and foremost we need $300,000 for a dignified college home. Then comes the need of $350,000 for free endowment to meet the present annual deficit of about $15,000, which the Treasurer now raises by personal solicitation.

We also need various funds to provide new courses of study which are constantly asked for, and without which a symmetrical development of the curriculum is impossible.

$50,000	Fund for History of Art, yielding	$2,000 a year
$15,000	Fund for direction of Music for social purposes, yielding	600 a year
$100,000	Fund for Physical Training and Hygiene, yielding	4,000 a year
$50,000	Fund for Law and Government courses, yielding	2,000 a year
$50,000	Fund for Domestic and Sanitary Chemistry, yielding	2,000 a year
$15,000	Fund for Voice-Training, yielding	600 a year

This makes a total of $930,000 for buildings and endowment; it represents no provision for future growth, but only the barest allowance for actual pressing needs of the present moment and the present number of students. With 85 per

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cent. of its students looking forward to self-support, and a large portion of these expecting to live and work in our own community, public interest in the rich equipment of these women for efficient service to the city ought to be easy to enlist.

While earnestly desiring the enlarged powers which will come with enlarged facilities, I still report with genuine satisfaction the high attainment in scholarship and womanly dignity which have characterized the student body during the year.

Respectfully submitted,

LAURA DRAKE GILL,

Dean.

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TEACHERS COLLEGE

REPORT OF THE DEAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor to submit the following report of the work of Teachers College for the academic year 1903–04.

Student Enrollment

The total enrollment of resident students in the College has been 804; Extension students, 1448; School pupils, 1105—a grand total of 3357. Of the College enrollment 68 graduate students and 428 professional students were candidates for a diploma, 101 were collegiate students, 62 were special students, and 145 were candidates for a university degree only. The number of college graduates was 315, and 156 others had a partial college course, an increase over last year of 37 % and 46 % respectively. There were also 184 normal school graduates, an increase of only 3 over last year. Our resident students came from 40 States, one insular territory, and seven foreign countries. They represented 105 colleges and universities, 62 normal and training schools, and 26 technical schools. Of the regular students 66 were candidates for the degree of Doctor of Philosophy, 34 with Education as the major subject; 124 were candidates for the degree of Master of Arts, 68 with Education as the major subject; 263 were candidates for the degree of Bachelor of Science in Education, and 119 were candidates for the degree of Bachelor of Arts, 26 in Columbia College and 93 in Barnard College.

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The work of the several departments of the College has been very satisfactory. In respect to class registration there has been a slight falling off. The departments of Educational Psychology and the History of Philosophy are still considerably in the lead, owing both to the heavy registration in certain required courses and to the tendency of students under the graduate faculties to elect Education as a minor subject. The only other departments approaching these, in point of numbers, are Domestic Science, English, and Manual Training. The only departments which have increased their registration over last year are Educational Administration, Domestic Science, French and German, Mathematics, Music, Physical Education, and Physical Science.

Registration

Nature Study has been greatly facilitated by the use of the Peabody Greenhouse and the school garden. We now have about an acre of land laid out in plots for children's use, and around the borders are many hundreds of trees, shrubs, and plants selected especially for their value in nature study. Considering the advantages secured, the returns have already justified the expenditures. We are now able to give efficient instruction in nature study and the principles of agriculture.

Nature Study

The departments of Domestic Art and Domestic Science have both been making satisfactory progress, despite hindrances which cannot easily be overcome. The most serious obstacle is found in the reluctance of college-bred women to enter these fields. Few of these students are college graduates, and fewer still have a good preparation in the basic arts and sciences. Hence the necessity of instruction in elementary science for those who need it, and special provision for those who are prepared to do more advanced work. The appointment of Dr. H. T. Vulté to an adjunct professorship in Domestic Science will enable the department to modify and extend its courses in household chemistry. There is still need, however, of advanced instruction in household economics for which I trust some one will soon supply the means.

Domestic Art and Science

The department of Fine Arts has been entirely reorganized

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during the year. Professor Churchill and Mr. Robinson, to whose credit belongs the present efficiency of the department, have been granted leave of absence for a year, at the end of which their connection with the College will terminate. It is fitting, therefore, that I should express the regret of my colleagues in losing from our ranks two such devoted teachers. The new director of the department is Mr. Arthur W. Dow, whose standing as an artist and whose reputation as a teacher of painting and design are well known the country over.

Fine Arts

The Kindergarten department has been greatly strengthened for next year by the appointment as lecturers of Miss Susan E. Blow and Miss Laura Fisher. The former has been for many years the acknowledged leader in the kindergarten movement in the United States, and the latter holds the responsible position of Supervisor of Public Kindergartens in Boston. Miss Blow will be in residence during the second half-year, and Miss Fisher will lecture regularly on Saturday mornings. Both courses will be open without charge to kindergarten teachers in New York and vicinity. This arrangement is the outcome of an agreement recently made with the Kindergarten Association and the Froebel League of New York City, whereby Teachers College assumes the responsibility of all work hitherto undertaken by these organizations for the training of teachers. A Kindergarten Council representative of Teachers College, the Kindergarten Association, and the Froebel League has also been established to promote the interests of the several organizations, to avoid duplication of effort, and to advance the cause of kindergarten education in this city. The plan involves a considerable increase in the appropriation for our Kindergarten department, all of which has been generously met by Mrs. James Gayley.

Kindergarten

The department of Physical Education has been seriously hampered by the prolonged illness of Dr. Wood. In his absence Dr. W. Gardiner Smith has acted as College physician, holding daily office hours for consultation, and that without remuneration of any kind. Other physicians, notably Drs. Smith Ely Jelliffe, Henry D. Chapin,

Physical Education

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and W. A. Bastedo, have generously assisted in certain courses, the general direction of which has devolved upon members of our regular staff. The department has been still further hampered by the delay in the completion of the new building. But after a year of trial we are now looking forward to the return of Dr. Wood, and to the occupation of the Thompson Building at the opening of the ensuing academic year. In anticipation of greater demands upon the department next year, we have appointed Dr. W. H. McCastline assistant director of the Gymnasium, and secured the co-operation of Dr. Meylan, director of the University gymnasium, and Dr. Skarstrom, University instructor in physical education, both of whom will conduct professional courses in Teachers College. All these arrangements are highly satisfactory, and should materially contribute to the success of the department under its new and improved conditions.

The Bryson Library is steadily growing. The Librarian reports 25,374 bound volumes and over 5000 pamphlets now on the shelves. During the year 2737 bound vol- **Bryson Library**
umes have been added, and the entire Education section of the University Library transferred to Teachers College. The concentration of all books on Education in one place greatly facilitates the use of the combined libraries, but it puts a severe strain upon our library accommodations. The room set aside for graduate students two years ago, and then thought sufficient for many years to come, is already outgrown. A tentative rearrangement is contemplated for next year, but in a very short time more room will be imperative. For the first time, too, since the endowment of the library by Mrs. Bryson, it has been necessary to draw upon the general funds of the College to assist this department. It is obvious, however, that additional support must be provided unless the endowment is increased. We need now $50,000 for this purpose, and very soon as much more will be required to meet even the most pressing needs of the several College departments.

The Educational Museum has made a fine record during the year despite the meagre support which has been received. Several exhibitions have been held which have at- **Educational Museum**
tracted public attention, notably those on Mathe-

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matics, Household Economy, Kindergarten Education, and Japanese Life and Education. Because of the illness of our former director, the burden has fallen on Mr. B. R. Andrews, who has acquitted himself with great credit, and well deserves promotion to the directorship of the department. Some day, I hope, a patron will be found who will provide a suitable building for both library and museum and make them worthy of the great object for which they stand.

Horace Mann School

The Horace Mann School has not come up to full expectations in point of registration, but in the work which it has done it has easily surpassed any previous year of its history. The new gymnasium will be a welcome addition to its facilities, and a larger and stronger staff of teachers will enable it to make good progress next year. The Elementary School, under the principalship of Mr. Pearson, is rapidly working out many perplexing problems in the arrangement of its curriculum and methods of teaching. The High School, like all schools which make it a business to fit pupils for college, is suffering from the ills of college entrance requirements. In order to avoid undue haste the course has been lengthened from four to five years by transferring the eighth grade from the Elementary to the High School. Nevertheless it is impossible to hold all pupils to a respectable course in music, fine arts, and manual training, and few girls find it possible to pursue the courses in domestic art and science which the School is so well equipped to give. We must either sacrifice many of our ideals of secondary education, or run the risk of seriously overburdening many pupils. In such a situation there is no alternative. Our efforts must be directed to making as good a preparatory school as the colleges will permit; the ideal secondary school must await a more enlightened age of higher education.

Speyer School

The officers of the Speyer School deserve much credit both for the good work they have done and for finding out what still needs doing. Few schools, I am convinced, ever accomplished more with so little financial support. The regular staff of the School has been reinforced by numerous volunteers from the students of Teachers College, Columbia College, and neighboring residents. There has been

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hearty co-operation and earnest devotion in the effort to attain the chief aim of the School, namely, to ascertain how a public school may best serve the community. Besides the regular day classes of a kindergarten and elementary school, provision has been made for public lectures and entertainments, afternoon and evening classes in manual training for boys, sewing and cooking for the older girls and women, gymnastics and dancing, a savings bank for children, library and reading-room for both adults and children, public baths for men and women, and numerous clubs and social organizations for both sexes and all ages. In fact, the activities have been so many and varied that we are confronted with the alternative of checking the work or greatly increasing the expenditures in support of it. No good can come from an experiment which is not carefully conceived and properly executed. Volunteer workers, each interested in a particular task, need professional guidance and should be kept in touch at all times with their colleagues. The object for which all are working should be constantly kept in view, and the temptation to swerve from it as occasion offers sedulously avoided. In our Speyer School there has been no lack of workers, but there has been great need of a competent director. The director should theoretically be at the head of the entire school, he should be a master both in the administration of a day school and in the management of a night school and social settlement. Suffice it to say that such men are not numerous and they are not to be had for the asking. In my opinion we need at the head of the Speyer School a man who shall rank second to none in any department of the College, and he should be supported by a full corps of competent assistants. Under such a *régime* the full capacity of the building could easily be reached, and full satisfaction received from and given to each volunteer worker. Any other plan must be a compromise enforced by lack of means to do our full duty as we see it.

Elementary Education

The department of Elementary Education has steadily declined in registration during the past three years. This is partly due to the transfer of a course required of all students to the department of Educational Psychology, partly to the tendency of students

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interested in elementary education to specialize in other departments, partly to the reluctance of college graduates to engage in elementary teaching, but more especially, I think, to the exacting requirements which we prescribe to graduates of normal schools, and the temptation confronting them when they do meet our requirements to enter some other field. The department is designed to meet what is perhaps the greatest need of public education, and the demand for our students shows that the value of our instruction is highly appreciated by the public at large. The salaries paid to competent elementary teachers, critics, and supervisors are fully equal to those paid in any other grade, and the inducements offered to administrative officers are unrivalled. It behooves us, therefore, to strengthen our department and to remove all obstacles to its successful development. Precisely what steps to take is a question difficult to answer. College graduates, even graduates of Barnard College, as I have repeatedly pointed out in former reports, do not realize that it is greatly to their advantage to engage in elementary teaching and thereby avoid the severe competition for positions in secondary schools. Our only sources of supply are the normal schools and our own collegiate course. Graduates of normal schools are reluctant to give up good positions and to incur a heavy expense on the chance of bettering themselves two or three years hence. The large number of students who come to us on leave of absence is indicative both of the caution exercised by teachers in active service and of their desire to fit themselves for better positions. My suggestion is that we arrange for such students a one year's curriculum leading to a special certificate. Such a curriculum would have the advantage of presenting something definite to the student, and might at the same time be arranged in such a way as to offer to capable students additional inducements to complete the full requirement for a diploma. There is precedent in our dealing with students in Hospital Economics for the granting of a special certificate on the completion of a one-year's curriculum. The development of that department may well be taken into account in any plan for the extension of our work in Elementary Education.

If the policy of granting a special certificate on the comple-

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tion of a curriculum such as I have described should commend itself to the Faculty, I see no reason why it should not be extended to the kindergarten and technical departments. Many of our best technical students are not at first inclined to pursue the regular curriculum. Some of them have not had the precise preparation set for admission to the professional curriculum, and yet are quite competent to do the work of the technical courses. For such students we have made special concessions at entrance, and have countenanced a variable standard for admission. This practice has obtained only in case of those candidates for a diploma and has been, I believe, altogether justifiable. In my opinion, however, it would be more expedient, and at the same time more consistent with university usage, to grant diplomas only to those who take degrees and to reserve for students who by choice or necessity take a shorter curriculum a testimonial certifying to their actual accomplishments.

Certificates

Incidental to the maintenance of uniform standards for both admission and graduation is the significance of our degrees and diplomas. Once their parity is established, why should both be granted? The answer is that the degree as granted by Columbia University is a general testimonial, whereas the teacher needs specific evidence of his professional ability. Our diploma, both as a means of self-protection and in order to meet the legal requirements of most States, defines exactly the subject or subjects in which the holder has specialized, and the kind of position which in our judgment he is best qualified to fill. In this form it is readily convertible into a legal license to teach, except in one State and a few of our larger cities, which insist on examinations of their own. The value of such a diploma is obvious, but I see no reason why the degree of Bachelor of Science in Education could not be equally as explicit, and thus perform the same function.

Degrees and Diplomas

The report of the Appointment Committee shows that there is no lack of positions for our graduates. It seems to make little difference what specialties are chosen by students; there are good openings in every field for those who are thoroughly fitted for the work.

Appointment Committee

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During the year ending September 1, 1904, direct requests have been received for 1009 teachers, as against 787 during the previous year. The number of positions to which our students have been appointed, or to which they have returned after leave of absence, is 287, distributed as follows:

Colleges and Universities	18
Normal Schools	16
Superintendents of Schools	5
Supervisors and Special Teachers	93
Secondary Schools	99
Elementary Schools	51
Kindergartens	13
Hospital work	10
Other positions	17
	322
Less names counted twice	35
Total	287

Business Administration

The total expenditures for the year (except permanent investments) were $345,031.72, of which $324,953.83 were paid from general funds, $13,194.80 from the income of trust funds, and $6,883.09 from receipts for designated purposes. The total receipts, not including gifts for permanent investment, were $350,327.53, of which $265,611.08 were from earnings, $64,975.00 from gifts for general purposes, $6,952.11 from gifts for designated purposes (mostly scholarships), and $12,789.34 from income of special funds. The deficiency in the general fund amounted to $59,342.75 instead of $70,424.00, as estimated in the budget. The surplus, $5,632.25, remaining after applying to the general fund the gifts received for general purposes has been applied to the deficiency account of former years.

Increase in Expenses

Current expenses payable from the general fund have increased $38,795.43 over the previous year; in the meantime the increase in earnings applicable to the general fund has been $43,843.94. The comparison is gratifying and exhibits in the clearest possible way the steady progress of the institution. Six years ago the total current expenses amounted to $142,761.87, and the total earnings were $66,464.68. In comparison with corresponding figures in this report, there has been during the six years an increase in expenditures of $202,269.85, in earnings of $199,146.40, in the

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income of trust funds of $12,536.84, and in gifts for designated purposes of $4,352.11. Or, stated in another way, the institution has grown in six years from 169 college students, 395 school pupils, and 299 extension students, to 804 college students, 1105 school pupils, and 1448 extension students, and at the same time actually decreased the amount of donations annually required to meet current expenses by about $10,000.

This statement is an eloquent tribute to the public services rendered by Teachers College. No institution could so steadily increase its patronage and provide through its own earnings for so great internal development unless its work were highly appreciated and actually met an imperative public need.

Financial Outlook

The outlook is not in all respects encouraging. The College is nearing its maximum enrolment, and is, therefore, close to its greatest earning capacity. With an equable distribution of students between departments (an adjustment not easily attained) we could admit perhaps 200 more college students and 100 pupils in the Horace Mann School. On this basis the increase in tuition fees should amount to $40,000 annually. But whether we have more students or not, expenses are bound to increase. Over one hundred officers have been appointed at salaries which must be annually increased until the maximum in the several grades is reached. In some departments more instructors are wanted. At best we must look forward to an annual increase in the budget of $12,000 to $15,000 during the next five or six years. It would be folly, however, to enlarge the annual deficit which by good fortune we have succeeded in reducing in these past few years. Voluntary contributions, even to a worthy cause, cannot be depended upon as an assured means of support. It is more difficult to secure the $60,000 now required to meet our expenses than the $70,000 or $80,000 of a few years ago. Ordinary prudence, therefore, dictates the practice of the severest economy consistent with the maintenance of the highest standards of efficiency. The success of the past few years is primarily due to the confidence of the public in the integrity of our motives and in the superiority of our work. The best assurance of continued success

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is, in my opinion, the determination not only to permit no depreciation of present standards, but constantly to grow in strength as experience and public need shall suggest.

Retirement Provisions

It is worth while occasionally to recall the fact that the strength of an educational institution is the strength of its Faculty. Surely no institution ever had a more devoted Faculty than has Teachers College. They have carried the burdens imposed by our rapid growth, while each for himself has been under the necessity of developing a new field of instruction. No higher appreciation of their services could be given than is shown in the recent action of the Trustees in making provision for the honorable retirement on half pay at the age of sixty-five of professors who have been at least fifteen years in the College. Whatever expense may ultimately be entailed by this action, the College will, I am confident, be the gainer by relieving its chief officers from undue anxiety to provide for their old age. Speaking for my colleagues, I pledge the Trustees the best service that they can give. I know that, so far as in them lies, they will maintain the integrity of the institution and redeem its promises to the educational world.

Respectfully submitted

JAMES E. RUSSELL

Dean of Teachers College

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SUMMER SESSION

REPORT OF THE DIRECTOR

FOR THE SESSION OF 1904

To the President of Columbia University
in the City of New York,

SIR:

I desire to present herewith the annual report of the fifth Summer Session of Columbia University, held from July 6 to August 17, 1904.

The phenomenal increase in the number of students in the Summer Session of 1903 over the registration of 1902 was a gratifying evidence that the scheme of education offered by Columbia University in the summer season was meeting the demands of those who are compelled to limit their university or collegiate experience to the two months assigned to a furlough from regular duties. This increased registration, therefore, not only indicated that the development of summer work should follow lines already laid down, but made possible a great expansion in the number of courses offered, for it is the evident purpose of the University to give to its students as great advantages and as large opportunities as its means may justify.

The number and character of the courses of study, as shown in the circular of the Summer Session for the present year, clearly indicate the principle which prevailed in the preparation of the plan, viz., to secure a natural and logical development as extensive as was consistent with the expected income.

Teaching Staff

The body of instructors, as appointed by the President for the Summer Session of 1904, was drawn from the teaching staff of the University. The following are exceptions:

Professor Lewis Burton Alger of the University of Michi-

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gan; Professor Charles Sears Baldwin of Yale University; Miss Jessie Hubbell Bancroft, Assistant Director of Physical Education in New York public schools; Mr. John W. Hall, of the New York Training School for Teachers; Professor Charles Hubbard Judd of Yale University; Mr. Calvin N. Kendall, Superintendent of Schools at Indianapolis, Ind.; Professor William Seymour Monroe of the State Normal School, Westfield, Mass.; and Mr. William Roy Smith of Bryn Mawr College. Thus out of a total of sixty-one instructors, nine were not otherwise connected with the University.

The teaching staff of the Session of 1903 numbered 45 instructors and 12 assistants; that of 1904, 61 instructors and 18 assistants.

In accordance with the suggestions of the Director in his report for the year 1903, the plan of instruction for 1904 was made most comprehensive. Courses were given in all the subjects offered in 1903, and, in addition, in Domestic Science (2), Geography (3), Mechanical Drawing (4). The fact that 14 students attended in Domestic Science, 55 in Geography, and 35 in Mechanical Drawing, is an evidence of the appreciation with which these courses were regarded. Although arrangements had been made for the lectures in the History and Interpretation of Art, it became necessary to abandon this course in consequence of the illness of the instructor assigned to this work.

Courses Offered

New courses were offered in Anthropology (1), Chemistry (2), Education (2), English (6), Geology (1), German (3), Manual Training (1), Mathematics (4), Music (1), Psychology (1), Physical Education (5), Physics (2), Physiology (2), Romance Languages (6). All of the courses arranged for were given with the exception of Anthropology s2 (Primitive Arts and Industries), and Spanish s1b (Elementary course, second half), which were abandoned because of the non-attendance of students.

The actual number of courses given in 1904 was 111, against 77 in 1903. In the Department of Chemistry the course in Organic Chemistry, attended by 14 students, and in Chemistry of Food and Nutrition, attended by 12 students, were given for the first time this year. In Education arrange-

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ments were made for the attendance of three or four classes of the Speyer School. In consequence of this it was possible to give a course in Supervision, critical work, and experimental teaching. This was attended by 21 students. The advanced course in the Sources of Education, which was the second half of a similar course given in the summer of 1902, was attended by 13 students. In English, a second course in English Composition was given, which was intended to serve as supplementary to the introductory work in Rhetoric. It was attended by 24 students. Elocution, given for the first time, was elected in its two courses by 16 and 15 students, respectively. To supply the needs of students who had taken other courses in early English, Anglo-Saxon Literature was given and attended by 16 students. Two courses were given on the English Drama: the first, treating of its development, was attended by 23 students; the second, open to graduate students who were not taking other Summer Session courses, had an attendance of 6. The new course in Geology, entitled Invertebrate Palæontology, was attended by 1 student. In German the supplementary course promised in 1903 was attended by 8 students. A new advanced course, entitled Middle High German, open to those who had taken work in the History of the German Language, was elected by 3 students. Lectures given in German on the History of German Literature were attended by 11 students. In History, all four courses differed from those of the preceding year. The first, Mediæval History, was attended by 20 students; the second, English History to 1603, by 26; the third, American History—period of natural development, by 33; the fourth, American History—political and constitutional history of the United States, Jackson's administration, by 43 students. In Latin, Martial was substituted for Juvenal in the course on the Roman life, and was attended by 16 students. Plautus and Terence were read in place of Cicero's Letters, with an attendance of 13 students. A new course in Manual Training, entitled Metal and Leather Work, was elected by 28 students. In Mathematics two new courses — Transition to Algebra and Geometry and Projective Geometry—were attended by 18 and 8 students,

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respectively. Analytical Geometry and Calculus were each given in two courses, an arrangement which proved in every way satisfactory. In Music the additional course in the Theory and Practice of Teaching Music was attended by 10 students. In Psychology the new course on Child Study was attended by 15 students. The Department of Physical Education offered as new courses: Applied Anatomy and Physiology, with 10 students, Physical Training in Elementary Schools, with 17, Special Gymnastics and Swimming, with 82; and two courses entitled Physical Training in Secondary Schools and Physical Training in Colleges and Universities, each with 8 students. The new courses in Physics were entitled, High-School Physics, second year, attended by 5 students, and Advanced Laboratory Work, elected by 3 students. A course in General Physiology with 2 students, and in Human Physiology with 10 students, provided a well-rounded plan of work in this subject. A special course not previously announced, entitled Advanced Practical Physiology, and intended only for students fitted for special experimental work, was given by the enthusiastic instructor in this subject, and was elected by 2 students.

The Department of Romance Languages gave an additional Intermediate Course, elected by 2 students, and an additional course in General Introduction to French Literature (second half), with 7 students. The courses entitled Historical French and History of French Literature in the 17th Century were attended by 9 and 1 student, respectively. The course in Italian, given for the first time, had 5 students. One student attended the course entitled General Introduction to Spanish Literature.

It will readily be seen by this summary of new courses and attendance upon the same that the plan of development was remarkably in accord with the needs and desires of the student-body. It is also noticeable that the ambition of the various departments lies in the direction of work of a high grade, and that the education offered by the Summer Session tends rather to general culture and a broadening influence than to a special preparation for any particular sphere.

In the enrolment of the students the following departments show a gain above forty:

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Chemistry	119	students	— gain of		47
Mathematics	217	"	— "	"	53
Physical Education	149	"	— "	"	44
Psychology	138	"	— "	"	46

The enrolment in Education deserves some consideration, for there is a loss in this department of nearly 50 per cent. in comparison with the figures of last year, the attendance being 369 against 702 in 1903, and against 458 in 1900. This remarkable change may be due to the fact that many Summer Session students, particularly from New York and vicinity, in other years attended the courses in Education with a view to securing certificates of promotion and to qualifying for positions in the public schools. This class of students has been rapidly diminishing. The large general registration of the Summer Session maintained in the face of this great decrease in the number of students in Education emphasizes and strengthens the theory already advanced, that the majority of the students are now no longer in search of certificates, but are attending the University courses in the summer in their eagerness first of all to obtain knowledge.

The total number of students enrolled in the Summer Session of 1904 was 914, a loss of 26, or 2.7 per cent. as compared with the registration of 1903, and a gain of 497, or 119 per cent. over the registration of 1900. This insignificant decrease in the enrolment for the present year is the more remarkable in view of the fact that the great increase in the registration for 1903 over that of 1902 may have been due, as is very generally believed, to circumstances not related in any way to the work of the Summer Session. It seems entirely reasonable to believe that the registration of the present year represents the actual growth of the Summer Session, and from this point of view the showing is most satisfactory. In this connection an examination of the statistics of summer instruction at four of the largest universities offering such courses will be instructive:

Registration Statistics

	1900	1901	1902	1903	1904
University of California	433	790	830	859	908
Columbia University	417	580	643	940	914
Cornell University	356	423	546	470	571 *
Harvard University	784	766	737	1185	817 *

* These figures do not include the students from Porto Rico, numbering 143 at Cornell, and 343 at Harvard.

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The policy of the Administrative Board as to the number of courses allowed the Summer Session students was slightly changed for the present year. Hitherto students desiring more than two courses were required to obtain special permission, this restriction not applying to certain general courses. For the present year students were allowed a third course without special permission. No fourth course was, however, allowed, except Physical Education S14—special gymnastics and swimming. It is interesting to note that even with this change the average number of courses taken was 2.46, the same as last year, and as compared with 2.42 in 1902, 2.41 in 1901, and 2.6 in 1900.

The following table indicates the number of students taking one or more courses:

	1903		1904	
Students taking 1 course.....	81	81	104	104
" " 2 courses	395	790	316	632
" " 3 "	420	1260	464	1392
" " 4 "	38	152	30	120
" " 5 "	6	30		
	940	2313	914	2248

It is probable that among those taking three courses there are many who elected Physical Education S14, which was not included in the restriction. These should be regarded as students taking two courses, and this fact should be considered in the comparison of the figures of 1903 with those of the present year. The number of students taking one course has increased 22.01 per cent., and this may be regarded as a tendency toward greater thoroughness and as a testimony to the high chara ter of the work demanded. It is a question worthy of consideration whether, if certain courses are elected demanding a large amount of time, restriction to one or two courses should not again be enforced. I should favor increasing the number of courses leading to the higher degrees, demanding at the same time concentration upon the work of one or two such courses. This should certainly be required in the case of courses which are given a value of more than one point.

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An examination of the statistics (see Registrar's Report, pp. 226, 227) showing the previous academic training of Summer Session students discloses some facts of interest. The number of college graduates has increased from 25.11 per cent. to 30.63 per cent.; that of graduates of professional schools for teachers has decreased from 35.43 per cent. to 21.77 per cent. The number of students without secondary or higher training has fallen from 6.59 per cent. to 2.41 per cent. The percentage of this last class for 1902 was 4.51.

Such data as these are important as indicating a marked change in the educational equipment of the Summer Session students of the present year as compared with those of former years. It has also been true that the large majority of students of the Summer Session were teachers, but a classification on this basis for the present year indicates a decrease in the number of those holding such positions. The percentage of teachers for this year is 68.27 per cent., against 76.91 per cent. of 1903. These facts all tend to corroborate the theory advanced above, that the number of those who attend the Summer Session for the purpose of satisfying the demands of boards of education is apparently diminishing, and the student-body is becoming similar in character to that attendant upon the regular courses of the academic year.

Public Lectures

The usual course of lectures of a more popular character offered to the Summer Session students and open to the public was given by various members of the teaching staff. The following list enumerates the lectures in detail and the attendance upon each:

	Attendance
July 14—Professor WILLIAM HALLOCK	
The Influence of Radium and Other Radio-Active Substances on Ionization and the Conduction of Electricity in Gases (Illustrated)	119
July 19—Professor A. V. WILLIAMS JACKSON	
Persian Poetry	115
July 21—Professor WILLIAM SEYMOUR MONROE	
European Schools and their Lessons	90
July 26—Professor CHARLES SEARS BALDWIN	
The Place of Rhetoric in Liberal Education	85

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		Attendance
July 28	—Professor RICHARD ELWOOD DODGE The Importance of Climate to Mankind (Illustrated)	110
Aug. 2	—Professor JAMES EARL RUSSELL The Outlook for the Teaching Profession	135
Aug. 4	—Professor JAMES CHIDESTER EGBERT Recent Investigations in the Roman Forum (Illustrated)	135
Aug. 9	—Professor CASSIUS JACKSON KEYSER Truth and Mathematics	116

The regular work of the Department of Physical Education was supplemented by two lectures on the Possibilities of Limitations of Corrective and Medical Gymnastics in Physical Education, by Dr. Henry Ling Taylor of New York City.

The receptions for the Summer Session students were placed under the care of Dr. Meylan of the Department of Physical Education: one, held on the evening of Friday, July 15, was limited to students of that department; the second reception was given in the University Gymnasium to the instructors and students of the Summer Session on the evening of Thursday, August 11.

Excursions

The excursions to historical sites and to the Museums of New York for the season of 1904 were under the direction of Benjamin R. Andrews, A.M., Supervisor of the Educational Museum in Teachers College. These excursions were as follows:

			Number of Students
July	9	West Point, N. Y.	70
	16	Tarrytown and Sleepy Hollow	94
	29	Metropolitan Museum of Art	45
	30	Seabright, N. J.	23
Aug.	6	American Museum of Natural History	32

I would suggest certain modifications in the plan of excursions, looking mainly to increasing their number, by adding an historical ramble about lower New York, or a sociological trip (*e. g.*, to Blackwell's Island), and by employing the evenings for visits to Museums. If this is done it might be well also to give simply afternoons to the trips in the immediate

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neighborhood of New York. A little pamphlet containing exact information as to other excursions about the city, which could be taken privately, would be a great convenience to those unfamiliar with New York.

In view of the fact that the expansion in the Summer Session scheme for the present year has been very marked, I do not think it advisable, for the coming year, to add largely to the number of courses. I most earnestly repeat, however, my recommendation of last year as to courses in Greek—a reading course and one in prose composition. I would also recommend instruction in Greek and Roman History. New courses offered should be of a post-graduate character and should be recognized as such with appropriate credit and with the proper assignment in University work. This suggestion is based on the earnest request of students and on the recognition of the fact that the grade of those attending in the summer is steadily rising. This leads naturally to the consideration of questions as to residence. It is very desirable that the relation of the period of the Summer Session to the required year of residence be definitely determined. The Summer Session should be regarded as a portion of the academic year, and residence might be satisfied by the addition of two Summer Sessions to one term. It is beyond question that the Summer Session of six weeks' duration is an important addition to the general scheme of education offered by the University, and because of what it accomplishes it must not be disturbed. This, however, does not prevent the consideration of the possibility of offering in the summer post-graduate work that shall continue for a period of ten or more weeks of five hours each, so that work fully equivalent to that given in a regular term might be accomplished by the Summer Session student. This might be undertaken in a tentative way in certain subjects and courses. There is a growing impression that the University should not cease operations in the summer, but that it should provide for students who are anxious to complete their work in as short a time as possible, and whose work is seriously interrupted by the academic vacation. I am aware that this is a most important question and one which affects

New Courses Recommended

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the entire University. Nevertheless, it is a question which must soon be carefully considered.

Another subject concerning which I here take the liberty of speaking is the addition to the Summer Session scheme of courses in Law. I believe that the work of our law students in the regular term is so great as to interfere decidedly with the adequate accomplishment of what they desire in their three years of law training. It would undoubtedly be a great relief to such students if they could reduce the number of required hours in their Second or Third Year by attending lectures during the summer. Certain important subjects—for example, Agency, Carriers and Public Service Companies, Quasi-Contracts, Mortgages, Partnership, or Wills—might be offered and credit could justly be given for work accomplished. To render such a plan of any service to law students it would probably be necessary to offer ten courses of thirty lectures each. Naturally, this last question is closely related to the former suggestion, *i. e.*, extending certain advanced courses for a longer period than six weeks. It might be feasible to attempt this in the new summer courses in Law. Students of law are invariably desirous of shortening their period of study. If it were possible to supply a summer term of law work, the University would be conferring a great blessing upon those students who are tempted to enter upon their profession before they have obtained full and proper equipment for their work.

Summer Courses in Medicine

The series of courses in Medicine, established in 1903 for the benefit of practising physicians and for specially qualified students of medicine and surgery, has been continued during the summer of 1904.

Instruction began on Monday, May 23, and extended until Monday, September 5. The several courses given varied in length from three to six weeks. The subjects offered were: Clinical Pathology, Dermatology, Diseases of the Stomach and Intestines, Genito-Urinary Diseases, Gynecology, Laryngology, Medical Diagnosis, Neurology, Obstetrics, Ophthalmology, Otology, Pediatrics, Physical Diagnosis, Surgery.

The staff of instructors who gave courses was as follows:

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		Students.
George Emerson Brewer, M.D., Professor	Hospital Surgery	8
Charles Townshend Dade, M.D., Instructor in Summer Course	Dermatology	2
Edmund Le Roy Dow, M.D., Tutor	Physical Diagnosis	20
Carleton Phillips Flint, M.D., Instructor	Minor Surgery	2
Richard Frothingham, M.D., Instructor	Laryngology	3
John Howland, M.D., Instructor	Pediatrics	2
David Stuart Dodge Jessup, M.D., Assistant	Clinical Pathology	2
Linnæus Edford La Fetra, M.D., Instructor	Pediatrics	2
Ralph Waldo Lobenstine, M.D., Instructor	Obstetrics	15
Charles Ignatius Proben, M.D., Instructor	Gynecology	1
Henry Hawkins Tyson, M.D., Instructor	Ophthalmology	1

Ten of the eleven instructors were members of the teaching staff of the University. One was a Clinical Assistant at the Vanderbilt Clinic.

The total number of students was 56, distributed as follows:

	Graduates.	Medical Students.	Total.
Clinical Pathology	–	2	2
Dermatology	2	–	2
Gynecology	1	–	1
Laryngology	3	–	3
Obstetrics	3	12*	15*
Ophthalmology	–	1	1
Pediatrics	–	2	2
Physical Diagnosis	–	20	20
Surgery, Hospital	3	5	8
Surgery, Minor	0	2	2
			56

The number of courses taken in 1904 was 10, as compared with 6 in 1903. Of these, 2—Clinical Pathology and Dermatology—were offered in 1903, but not elected. Ten courses in Surgery were offered for the first time in 1904, of which 2 were taken by 10 students. The falling off in Obstetrics is explained on the ground that the increase in tuition fee induced some students to take a similar course at a lower fee in the New York Lying-in Hospital, where practical work outside of the institution was obtainable.

* One student paid one-half fee and did not attend.

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The students of the Summer Courses in Medicine are enthusiastic as to the subjects given and have been regular in attendance and have shown deep interest in their work. The earnest spirit of the instructors is also seen when it is considered that many have given their time freely, pursuing their work faithfully with one or two students.

There is strong demand for laboratory courses, especially in Bacteriology. The same success which has attended the opening of the laboratories in Chemistry and Physics would surely be secured if the same liberal spirit were shown in the Summer Courses in Medicine. It is not consistent with the spirit and aims of the University to keep this part of the institution closed and practically of no value during the summer months. It is also believed that the attendance during the summer would increase if courses of hospital instruction were given by men of wide reputation, and an earnest endeavor should be made in this direction.

Respectfully submitted,

JAMES C. EGBERT,

Director.

August 19, 1904

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THE GYMNASIUM

REPORT OF THE DIRECTOR

FOR THE YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

There are two distinct objects in the work of the Gymnasium. The first is, to promote the health and physical efficiency of the students and officers; the second object is, to give to all undergraduates as complete a physical education as possible in the time at our disposal. It has been our aim, during the past year, to so organize the work of the Gymnasium that these objects might be realized in the largest measure possible.

The gymnasium, swimming-pool, and dressing-rooms were kept open every week day during the academic year, except on four holidays and during Commencement week. The Gymnasium was closed earlier than usual on several occasions to prepare the floor for some social function in the evening. Although it is desirable to hold the social functions of the various students' organizations in the Gymnasium, it interferes with the rights and privileges of hundreds of students and officers who are unable to exercise before 4.30 o'clock. Every time a social function is held there are from 150 to 200 men denied the use of the Gymnasium. Some arrangement by which the Gymnasium may be made available for receptions and dances, without closing it earlier than usual, is highly desirable.

Uses of Gymnasium

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In order to increase the opportunties for hygienic exercise under instruction, three new optional classes were organized. One of these was for officers only, and the other two were open to all members of the University. A large number availed themselves of these opportunities, and many expressed their appreciation of the benefit derived. Besides these scheduled classes, the instructors devoted much time to instructing individuals and small groups at various times.

Optional Classes

Another factor in promoting the health of the students is the medical examination required of Freshmen and Sophomores, and offered to all members of the University. The purpose of this examination is to ascertain the physical condition of each individual and to advise him as to the care of his health. The examination includes a study of the family and personal history, the recording of measurements and strength tests, and an examination of the heart, lungs, eyes, ears, nose, throat, and other organs. On the basis of the data obtained, advice is given as to diet, study, sleep, and exercise. In connection with this examination a pamphlet is given to every student examined. It contains articles on the need and value of physical exercise, on bathing, diet, and personal hygiene; a list of the measurements and strength tests of the individual examined; an anthropometric chart; and a prescription of exercise suited to his needs. The value of these personal prescriptions of exercise has been greatly enhanced by giving individual instruction on the Gymnasium floor in carrying out the exercises prescribed. This phase of the work is of the utmost importance, but the amount of it which can be done is necessarily limited by the small portion of the instructors' time which is available for the purpose.

Medical Examination and Advice

Besides the regular physical examination once a year, the students have the privilege of consulting the medical director concerning their health. It is, of course, impossible for the medical director to give medical and surgical treatment to several thousand students. He has therefore not attempted to care for students who needed treatment, but has referred them to their family physicians or to specialists. In several

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instances he discovered cases of serious disease; among them were two cases of consumption, one case of epilepsy, and other diseases requiring immediate and prolonged treatment. But the most important part of these consultations is the very large number of students who consult the director for minor ailments, which require for their alleviation nothing more than advice on hygienic living. While this work is largely preventive medicine, it plays a large part in maintaining the health of the student body, and the knowledge and habits of right living resulting from it are of permanent value to the students in after-life. In this connection may be mentioned the dressings in minor surgery made every day in the Gymnasium office. Nearly all these dressings are for cuts, bruises, and sprains, resulting from the practice of athletic sports. About one hundred athletes were thus treated during the past year.

The medical examination required of all students who wish to take part in athletic contests is also a factor in promoting the health of the students. Six young men suffering from heart disease were refused pass-cards and thus prevented from injuring themselves. Nine others were given conditional pass-cards and required to present themselves for frequent examination.

Class Work

The second object of the Gymnasium Department is to give to all undergraduates as thorough a course in physical education as possible. The aims of such a course are: health, endurance, good carriage, physical judgment, and bodily control. Our problem is to realize these aims in the largest measure possible in the limited time at our disposal, and we have planned the work of the required classes accordingly. The classes were divided in small sections in order that we might get nearer to the individual. The calisthenic exercises were selected and taught with a view of securing health, good carriage, and control, especially of the smaller movements used in daily life, the sum of which makes up what is termed physical presence. The most difficult part of the work to teach efficiently is the exercises on the various pieces of gymnastic apparatus, intended to develop bodily control, especially in the larger

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movements with reference to external objects—as in overcoming obstacles—also will power, agility, physical judgment, and courage. This work should be taught individually to secure the best results, but as this is impossible, we organized a corps of thirty-five volunteer student instructors who taught each a squad of ten students, thus approximating individual instruction. These volunteer instructors were selected from all the classes and departments of the University, and received special instruction, one hour a week, from the Gymnasium instructors. These students have perfected a permanent organization which promises to aid materially in increasing the efficiency of the courses in physical education.

Plans have already been made to further develop and improve the work of the required classes. The classes for students in the Schools of Applied Science will be conducted under far more favorable conditions in the newly equipped auxiliary Gymnasium. The addition of one assistant to the staff of instructors, a better organization of the corps of volunteer instructors, and the further division of classes into small sections will greatly improve the character of the work.

Ends to be Attained

There is another very desirable feature that we propose to inaugurate in the required classes next year. Heretofore we have lacked some means by which students could be examined in physical-education courses. All attempts at determining proficiency in this branch of education have been limited to a comparison of strength-test records, and competition in gymnastic skill. Neither of these standards can serve a useful purpose in determining the degree of proficiency attained in the attainments for which we strive in our work. Great muscular strength is not one of our aims; an increase in the size and strength of the muscles is incidental to all physical exercise. Skill to perform gymnastic feats is an accomplishment which is possible only for a very small number of individuals, and should not be one of the aims in a well-planned course in physical education.

Our two most essential aims are: bodily control and vitality or endurance. It is the degree of proficiency attained in these physical qualities that we wish to measure in our exam-

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inations. The importance of these examinations will be far greater when the courses in physical education are included in the list of positive credits for the Bachelor's degree. A scheme of examinations based on the above principles will be introduced in the required physical-education courses during the next academic year.

Statistics

The following statistics give an idea of the activities of the Gymnasium Department during the year ending June 30, 1904:

Number of students and officers who availed themselves of the Gymnasium privileges	1,995
Number of lockers in use	1,654
Total attendance in the department during the year	77,324

MONTHLY AND AVERAGE DAILY ATTENDANCE

Year	Month	Total	Average, daily
1903	July	1,390	77
"	August	1,164	106
"	September	2,494	312
"	October	8,905	371
"	November	6,814	310
"	December	9,158	442
1904	January	8,750	365
"	February	9,557	398
"	March	12,351	458
"	April	8,501	370
"	May	7,340	386
"	June	900	112

Average daily attendance during academic year		387
Number of students in required classes (College 246, Science 356)		582
Number of sessions of required classes		358
Number of sessions of optional classes		241
Total attendance at required classes		10,280
Total attendance at optional classes		4,202
Number of physical examinations made		992
Number of athletic pass-cards issued		317
First-class cards	191	
Second- " "	84	
Third- " "	42	
Number of conditional athletic pass-cards issued		9
Number of athletic pass-cards refused		6
Number of students in training for the various sports		638

Distributed as follows:

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Football	102	Basketball	27
Rowing	95	Swimming	23
Baseball	72	Gymnastics	19
Track	66	Golf	16
Lacrosse	61	Handball	14
Cane Spree	51	Wrestling	10
Hockey	46	Tennis	6
Fencing	30		

Respectfully submitted,
GEORGE LOUIS MEYLAN,
Director.

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REPORT OF THE REGISTRAR

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor to submit herewith the annual report of the Registrar of the University for the academic year ending June 30, 1904. This report embraces the customary tables indicating the enrolment, geographical distribution, and higher education of the students, as well as Commencement and miscellaneous statistics. The more detailed tables, containing the titles of the courses in which instruction has been imparted, the officers who have given the courses, the number of hours a week for which the courses have been scheduled, and the number and classification of students in attendance on the courses, have been prepared as usual and may be consulted in the records of the Registrar's office, although they do not appear in this printed report. Several new tables have been added, in the hope that the information they impart may be of interest. In the table giving the residences of students, figures for Barnard and Teachers College have been added for the first time, in order that a more accurate idea of the exact nature of the geographical distribution of our students may be conveyed.

Introductory

In an article on the growth of Columbia University between 1754 and 1904, which appeared in the COLUMBIA UNIVERSITY QUARTERLY for June, 1904 (vol. vi., pp. 268–278), attention is called by the Registrar to the fact that Columbia University no longer draws its student clientele, as it did fifty years ago, almost entirely from the city of New York and vicinity. It is pointed out in the article that in 1850 the permanent residences of students included only four states, there being

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only nine students who came from localities outside of New York State. An examination of Table IV. will afford an interesting conception of the change that has come about in this respect during the past fifty years. More detailed reference to this expansion of influence will be made below in connection with the tables. Another important factor in the development of the University to which attention may be called here is the high percentage of students holding first degrees. It will be noticed from Tables VI. and VII. that about 45.8 per cent. of the students in the corporation are graduates of higher institutions of learning.

Enrolment

The increase in the total enrolment during the past year is due to a very large extent to the growth of the Summer Session, the attendance at which increased from 643 in 1902 to 1001 in 1903. The registration of the Law School shows a falling off of 77, the decrease being due to the requirement of the baccalaureate degree for admission for the first time last fall. The attendance at the School of Medicine also shows a considerable decrease, the loss being in large part attributable to increased standards for admission. With the opening of the present academic year higher requirements were instituted, whereby the minimum condition for admission to this faculty consists not as heretofore in the passing of examinations conducted by the Regents of the University of the State in certain specified subjects, and the obtaining thereby of a Medical Students' Certificate, but in the passing of an examination conducted either by the College Entrance Examination Board or by the Committee on Entrance Examinations of Columbia University. The decrease in the enrolment of the Medical School, however, is only a reflection of the general decrease in the number of medical students noticeable in institutions all over the country, and besides the introduction of higher preliminary standards, other factors, such as the increased cost of tuition, overcrowding of the medical profession, etc., must be held responsible. The graduate faculties and extension courses show the greatest gain aside from the Summer Session.

Excluding the students in extension courses, there have been 4709 students enrolled in the various schools of the University,

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as compared with 4507 registered during 1902–1903, a gain of 4.48 per cent. In the University Corporation (that is, excluding Barnard College and Teachers College), not counting in the Summer Session, the enrolment decreased from 3096 to 2994, for which loss I have accounted above. Including the Summer Session, however, and making proper allowance for duplications, the enrolment of the Corporation increased from 3671 to 3849, a gain of 4.85 %. As for the different faculties, the following percentages of increase or decrease may be noted as against 1902–03: Columbia College, 1.82 %; Faculty of Applied Science, 2.49 %; Faculty of Medicine, 15.22 % (loss); Faculty of Law, 16.70 % (loss); non-professional graduate faculties of Political Science, Philosophy, and Pure Science, 11.08 %; Summer Session, 55.68 %; Teachers College, 8.69 %; Barnard College, 12.57 %; students in extension courses, 32.94 %.

In order to convey an idea of the recent growth of the student body, the following figures are submitted:

1893....1640	1897....1946	1901....3761
1894....1804	1898....2191	1902....4234
1895....1942	1899....2812	1903....4507
1896....1878	1900....3207	1904....4709

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TABLE I

REGISTRATION AT COLUMBIA UNIVERSITY, IN ALL FACULTIES, DURING THE ACADEMIC YEAR 1903–1904

FACULTIES	First Year	Second Year	Third Year	Fourth Year	Specials	Graduates	Auditors	Total, 1904
Columbia College	118	112	115	110	49			504
Barnard College	101	72	80	78	72			403
Total undergraduates								907
Faculty of Political Science					10	142	2	154
Faculty of Philosophy					6	404	21	431
Faculty of Pure Science					5	102		107
Total non-professional graduate students (*)								692
Faculty of Applied Science	175	227	144	103	74	17		740
Faculty of Law	121	152	110		1			384
Faculty of Medicine	106	164	190	178	36			674
Teachers College								688
Total professional students								2486
Deduct double registration (†)								*196*
Net total								3889
Summer Session, 1903								1001
Grand net total (‡)								4709
Students in extension courses								1590

* The total 692 does not include 143 college graduates studying under the professional faculties of Law, Medicine, and Applied Science, who are also candidates for the degree of A.M. or Ph.D.

† The 196 are distributed as follows: 17 students in Columbia University (11 men and 6 women) and 79 in Barnard College are also enrolled in Teachers College as candidates for a professional diploma; 100 Teachers College students are enrolled in the faculty of philosophy as candidates for the higher degrees (34 Ph.D., 66 A.M.).

‡ Excluding 181 Summer Session students of 1903 who returned for work at the University during the academic year 1903–1904.

Table II. is of a comparative nature and gives the total registration for the last six years.

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TABLE II

REGISTRATION AT COLUMBIA UNIVERSITY, IN ALL FACULTIES, DURING THE ACADEMIC YEARS 1898–1904

FACULTIES	1898–1899	1899–1900	1900–1901	1901–1902	1902–1903	1903–1904
Columbia College	403	465	476	492	495	504
Barnard College	202	251	301	339	358	403
Total undergraduates	605	716	777	831	853	907
Faculties of Political Science, Philosophy, and Pure Science (*)	376	442	466	535	623	692
Total non-professional graduate students	376	442	466	535	623	692
Faculty of Applied Science	459	491	566	626	722	740
Faculty of Law	349	380	423	440	461	384
Faculty of Medicine	726	787	797	809	795	674
Teachers College	297	391	528	634	633	688
Total professional students	1831	2049	2314	2509	2611	2486
Deduct double registration (†)			*105*	*134*	*132*	*196*
Net total	2812	3207	3452	3741	3955	3889
Summer Session			417	579	643	1001
Grand net total (‡)	2812	3207	3761	4234	4507	4709
Students in extension courses	1173	751	679	900	1196	1590

* Women graduate students registered at Barnard College in 1898 and 1899, but have been included here under the graduate faculties, as they have been so registered since 1900. These figures also include auditors registered in the graduate faculties; these were accounted for separately in all reports previous to 1903.

† Students in Columbia University and in Barnard College also enrolled in Teachers College as candidates for a professional diploma, and Teachers College students enrolled in the non-professional graduate faculties as candidates for the higher degrees.

‡ Excluding Summer Session students who returned for work the succeeding fall.

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The figures in Table III. explain the distribution of the students in the different departments of the Faculty of Applied Science and in the School of Architecture during the past year:

TABLE III

1904	First Year	Second Year	Third Year	Fourth Year	Graduates	Specials	Total
Architecture	19	21	14	9	5	22	90
Chemistry	11	14	3	4	*	4	36
Civil Engineering	34	30	22	20	3	4	113
Electrical "	43	47	27	24	3	5	149
Mechanical "	27	38	16	19	1	13	114
Metallurgy	2	4	1	1	3		11
Mining Engineering	39	73	61	26	2	26	227
Total	175	227	144	103	17	74	740

* The graduate students in chemistry (26) register under the faculty of pure science. If they were included in the table, it would increase the chemistry figures to 62 and the total to 766.

Geographical Distribution

The geographical distribution of students in the University Corporation, as well as in Barnard College and Teachers College, is shown in Table IV., and it will be seen that it embraces 45 states, the District of Columbia, 5 territories,—including Alaska and Hawaii, —the insular territory of Puerto Rico, the Philippine Islands, and no less than 30 foreign countries. The percentages of representatives from the various divisions have been indicated in the parentheses after the divisions. Comparing the percentages of the Corporation only with the corresponding ones for the two previous years, we note that the number of students coming from the North Atlantic Division has decreased almost 3 % since 1902, while all the other divisions, without exception, show a slight increase since that time, the largest gains being noticeable in foreign countries and in the North Central Division:

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	1902	1903	1904
North Atlantic Division	84.93	83.28	82.19
South Atlantic Division	2.40	2.85	2.69
South Central Division	2.19	2.13	2.29
North Central Division	5.87	6.26	6.56
Western Division	3.02	3.02	3.20
Insular Territories	0.03	0.13	0.24
Foreign Countries	1.56	2.33	2.83

For a number of years no important change has been manifested in the percentage of students in the University registering from New York City. During the last year at the old site and the first two years at the new site, the students who claimed New York City as their permanent residence comprised 56 % of the student body. During the academic years 1899–1901, the percentage was reduced to 54 %; during 1901–1902, it rose again to 56 %; in 1902–1903, it fell to 55 %, and this year it has been reduced to 54 %. These fluctuations are so small that no positive inferences can be drawn from them. We may, however, make interesting deductions in two or three years from similar tables after the dormitories to be erected have had an opportunity to influence the geographical distribution of the student body.

The growth in the actual number of students from foreign countries is both interesting and important. No less than 84 students of the Corporation (104 including Barnard and Teachers College) came from foreign countries this year, as against 22 ten years ago. In 1894 only one student of the Corporation claimed Europe as a permanent residence, as against 21 in 1904, and only one came from Asia in 1894, as against 19 this year. The greatest number of European students hails from England, while Japan sends the largest contingent of Asiatic students. The faculty of applied science attracts the greatest number of foreign students.

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TABLE IV

RESIDENCES OF STUDENTS—(A) THE UNITED STATES

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Barnard College	Teachers College	Duplications	Total
North Atlantic Division (82.80 %):	471	284	600	589	96	321	81	384	543	168	3201
Connecticut	4	5	23	13	1	8		3	15	2	70
Maine	1		2		1	2	2		3		11
Massachusetts	1	2	27	6	3	8	2	2	11	2	60
New Hampshire			2					1	5	2	6
New Jersey	55	22	97	67	14	31	13	55	75	21	408
New York	401	241	425	483	71	252	60	318	383	131	2503
Pennsylvania	6	11	13	19	5	11	1	4	34	3	101
Rhode Island	1	3	8			4		1	2	1	18
Vermont	2		3	1	1	5	3		15	6	24
South Atlantic Division (2.66 %):	4	18	15	21	4	13	5	1	27	5	103
Delaware		1	1	2			1		1		6
District of Columbia	1			5			1		1		8
Florida		2	4	1		1			1		9
Georgia		8	2	4	1	3	1		7	3	23
Maryland		1	1	4	1	3		1	4	1	14
North Carolina	1	3	3	1	2	3	1		5	1	18
South Carolina		2	2	1		1			2		8
Virginia	2	1	2	2		1	1		4		13
West Virginia				1		1			2		4
South Central Division (2.28 %):	10	15	17	9	7	8	2	7	13		88
Alabama	1	1	4	2		2		2	3		15
Arkansas	1	4	1								6
Kentucky	1	3	3	3	3	2	1	3	3		22
Louisiana		2		1					2		5
Mississippi	2		2		1		1		1		7
Oklahoma		1				1					2
Tennessee		2	1		2	2			1		8
Texas	5	2	6	3	1	1		2	3		23
North Central Division (6.60 %):	12	46	16	42	22	45	12	6	69	15	255
Illinois	1	9	3	6	2	4	1	1	5		32
Indiana	2	8	3	1	5	3			5	1	26
Iowa	1	5		2	3	4	3		2		20
Kansas		1	1		1	2			4		9
Michigan			1	5	1	7	1		11	3	23
Minnesota	1			8	2	3	2				16
Missouri	2	2	2	2		5	1	2	5		21
Nebraska	2	5		3		1	2		1		14
North Dakota	1										1
Ohio	2	13	4	14	5	12	2	3	26	10	71
South Dakota		2		1		1			2	1	5
Wisconsin		1	2		3	3			8		17
Western Division (2.79 %):	4	20	8	44	5	10	4		17	4	108
Arizona		2									2
California	1	5	2	11	2	6	1		9	2	35
Colorado	1	4	2	14		1	2		2	1	25
Idaho		1				1					2
Montana	1	1	2	6	1		1		2	1	13
Nevada		1									1
New Mexico			1						1		2
Oregon		1	1	2		2			1		7
Utah	1	1		8	1				1		12
Washington		4		2	1				1		8
Wyoming			1								1
Insular and Non-contiguous Territories (0.18 %):			3	4							7
Alaska				2							2
Hawaiian Islands			1								1
Philippine Islands			1								1
Puerto Rico			1	2							3
Total	501	383	659	709	134	397	104	398	669	192	3762

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TABLE IV (*continued*)

(B) FOREIGN COUNTRIES

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Barnard College	Teachers College	Duplications	Total
Australia			1								1
Austro-Hungary				2				1			3
Belgium				1							1
Brazil				2							2
Bulgaria									1		1
Canada	1		4	1	6	8	1	1	13	3	32
Chili				1							1
China				2	1						3
Colombia			1								1
Costa Rica				1							1
Cuba		1	3	1							5
Ecuador				1							1
England	1		1	6		1		1	3	1	12
France				1			1				2
Germany				1							1
Holland				1							1
Honduras				1							1
India			1	1							2
Japan					11	2	1				14
Mexico			2	3							5
Natal	1			1							2
Nicaragua			1								1
Russia				2		1					3
Spain				1							1
Sweden								1			1
Switzerland						1					1
Transvaal				1							1
Turkey									1		1
Turkey (in Asia)								1			1
West Indies			1						1		2
Total (2.69 %)	3	1	15	31	18	13	3	5	19	4	104
Grand total (excluding auditors)	504	384	674	740	152	410	107	403	688	196	3866

1611 students in the Corporation claim New York City for their permanent residence, distributed among the faculties as follows: College, 348; Law, 188; Medicine, 353; Applied Science, 401; Graduate Faculties of Political Science, Philosophy, and Pure Science, 321.

Table V. is of a comparative nature, indicating the geographical distribution of students in the University Corporation only, since 1893 (excluding Summer Session students).

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TABLE V

(A)—THE UNITED STATES

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
North Atlantic Division:	1435	1585	1712	1634	1666	1848	1894	2069	2273	2442	2541	2442
Maine	6	10	8	14	14	10	9	9	12	11	7	8
New Hampshire	5	6	6	4	4	3	4	4	4	7	7	2
Vermont	7	8	9	6	9	13	6	10	13	10	13	15
Massachusetts	35	37	42	34	36	41	37	62	57	62	63	49
Rhode Island	8	9	12	10	8	10	11	11	18	19	22	16
Connecticut	33	30	40	35	40	54	58	70	63	70	56	54
New York	1137	1246	1335	1286	1308	1433	1501	1630	1799	1951	2014	1933
New Jersey	178	212	229	210	214	237	230	230	256	260	296	299
Pennsylvania	26	27	31	35	33	47	38	43	51	52	63	66
South Atlantic Division:	38	31	31	30	41	47	45	69	66	69	87	80
Delaware		1	2				2	2		5	3	5
Maryland	8	8	9	5	6	4	5	7	7	7	9	10
District of Columbia	5	3	3	3	1	2	3	5	6	9	10	7
Virginia	7	5	4	5	5	10	10	14	9	5	15	9
West Virginia	3	5	2	1	5	4	2	2	3	2	4	2
North Carolina	5	2	1	2	9	8	8	15	12	10	16	14
South Carolina	2	3	2	2	2	2	2	1	5	5	9	6
Georgia	5	3	7	10	12	14	11	20	22	23	16	19
Florida	3	1	1	2	1	3	2	3	2	3	5	8
South Central Division:	30	42	41	34	35	47	42	48	75	63	65	68
Kentucky	9	11	14	10	8	10	11	13	22	16	18	16
Tennessee	6	6	5	8	7	9	6	5	14	10	10	7
Alabama	4	7	8	6	7	10	8	8	13	7	9	10
Mississippi					1	2	2	3	2	7	4	6
Louisiana	3	1	1	1	2	2	1	2	3	2	3	3
Texas	8	16	12	9	5	11	9	14	15	16	14	18
Arkansas		1	1		4	2	5	3	4	4	5	6
Oklahoma					1	1			2	1	2	2
North Central Division:	81	97	102	113	115	130	133	150	160	169	191	195
Ohio	25	28	26	35	37	37	25	34	41	37	45	52
Indiana	4	8	12	5	10	11	17	24	21	22	18	22
Illinois	6	16	9	9	12	19	24	23	29	24	25	26
Michigan	4	7	2	3	7	7	10	16	11	16	12	15
Wisconsin	13	10	8	13	8	13	11	9	5	10	13	9
Minnesota	8	8	12	11	6	7	8	8	8	9	11	16
Iowa	7	4	6	8	12	13	11	8	13	18	20	18
Missouri	5	6	14	17	9	12	11	14	17	13	17	14
North Dakota	1	2	2	3		1	2	2	2	3	3	1
South Dakota			1				1	1		4	5	4
Nebraska	3	4	5	4	6	2	7	12	10	10	16	13
Kansas	4	4	4	4	7	7	6	8	3	3	6	5
Indian Territory	1		1	1	1	1						
Western Division:	29	27	25	27	38	45	55	59	76	86	92	95
Montana	3	1	2	3	4	4	8	7	8	10	7	12
Wyoming				1		1	2	1	1	1	3	1
Colorado	3	1	1	2	6	12	12	13	21	17	28	24
New Mexico	1	1			1	1	1	1	3	5	4	1
Arizona									1			2
Utah	3	3	5	2	4	5	6	5	9	8	9	11
Nevada							3	3	1	2	1	1
Idaho	1	1		1						1	1	2
Washington		1	1	4	4	4	1	2	4	9	8	7
Oregon	6	8	3	1	5	3	3	3	5	7	8	6
California	12	11	13	13	14	15	19	24	23	26	23	28
Insular and Non-contiguous Territories:	2	1	3	2	3	3	4	3	4	1	4	7
Alaska	1	1		1			1				1	2
Hawaiian Islands			1	1	3	3	3	3	2			1
Philippine Islands												1
Puerto Rico	1		2						2	1	3	3
Total	1615	1783	1914	1840	1898	2120	2173	2407	2654	2830	2980	2887

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TALBE V (*continued*)

(B) FOREIGN COUNTRIES

	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904
North America:	14	18	20	21	14	18	15	18	20	21	34	35
Bermuda	1											
Canada	7	10	11	12	7	11	10	9	6	10	16	21
Central America	2	3	3	4					1		2	3
Cuba	2	4	4	4	4	5	4	5	7	8	9	5
Mexico	2	1	1	1	2	2	1	4	6	3	6	5
Santo Domingo			1									
West Indies					1						1	1
South America:	4	2	3	1				1	2	2	3	5
Brazil												2
Colombia	3	1	3	1								1
Peru	1										2	
Unclassified		1						1	2	2	1	2
Europe:	5	1	2	2	5	13	7	7	8	7	20	21
Austro-Hungary	2					3					2	2
Belgium												1
France	1	1		1				1			4	2
Germany								1		1	3	1
Great Britain and Ireland	1				1	2	1	3	6	5	5	9
Holland											1	1
Italy				1				1			1	
Russia			1		1	5	3			1	2	3
Spain			1		1	1	1				1	1
Sweden	1								1			
Switzerland						1					1	1
Turkey					2	1	2	1	1			
Asia:	3	1	4	7	3	5	10	16	8	12	11	19
China											3	3
India										3		2
Japan	2	1	3	7		3	9	14	6	9	8	14
Persia					3	1	1	1	1			
Turkey	1		1			1		1	1			
Africa:					1	1	3	2	2	1	2	3
South Africa					1	1	3	2	2	1	2	3
Australia:								1	1	2	1	1
Total	26	22	29	31	23	37	35	45	41	45	71	84
Grand Total *	1641	1805	1943	1871	1921	2157	2208	2452	2695	2875	3051	2971

45.8 % of our students in the various faculties of the Corporation are graduates of higher institutions of learning, as against 39.4 % last year. The gains in the professional faculties of law and medicine are quite marked. There were during the past year 1360 students who were graduates of 214 institutions of collegiate rank in the United States and of 51 similar institutions in foreign countries. The figures giving detailed information on this point are found in Table VI.

* Exclusive of auditors.

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TABLE VI

GRADUATES OF

(A)—HIGHER INSTITUTIONS IN THE UNITED STATES

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Total
Add Ran University, Texas					1			1
Adelphi College						9	2	11
Agricultural & Mech. Coll. of Texas							1	1
Alabama Polytechnic Institute			1					1
Alfred University			2			1		3
Allegheny College					1	2	1	4
Amherst College		6	3	3	3	5	1	21
Antioch College						1	1	2
Armour Institute of Technology							1	1
Augsburg Seminary					2			2
Augustana College					1	1		2
Austin College		1	1					2
Baker University					1			1
Baltimore Medical College			1					1
Baylor University							1	1
Beloit College			1		2	2		5
Bethany College						2		2
Boston University			1	1	2	3		7
Bowdoin College					1	2		3
Brown University		1	11			4		16
Bryn Mawr College					1	6	1	8
Butler College		1						1
Canisius College		1	1					2
Capital University, Columbus, O.						1		1
Carleton College		1					1	2
Case School of Applied Science				1				1
Central Pennsylvania College						1		1
Central University, Ky		1						1
Central Wesleyan College						1		1
Charleston College						1		1
Chicago University		1			1			2
Christian Brothers College		1						1
Colgate University			2		1		1	4
College of the City of New York		35	55	23	15	60	8	196
College of Pharmacy, N. Y.			8			1		9
Colorado College		1	1				1	3
Columbia University		73	38	20	34	116	32	313
Cooper Institute				2				2
Cornell College, Ia		1						1
Cornell University		7			3	12	3	25
Cumberland University						1		1
Dartmouth College		2	2			3		7
Delaware College		1		1				2
De Pauw University		3			1	1		5
Dickinson College					1	2		3
Drake University		1			1	1		3
Drew Theological Seminary					2	3		5
Elmira College						1		1
Emory and Henry College		1	2					3
Emory College					1			1
Eureka College		1			1			2
Franklin and Marshall College		3				3	1	7
Fremont Normal College, Neb.		1						1
French American College, Mass.			1					1
General Theological Seminary						2		2
Georgetown University		1	2					3
Hamilton College		4	4					8
Hamline University						1		1

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TABLE VI (*continued*)

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Total
Hampton College						1		1
Harvard University		15	20	15		19	2	71
Haverford College		2						2
Hebrew Union College					1	1		2
Heidelberg University, Ohio						1		1
Highland Park College				1				1
Hiram College					2			2
Hobart College						1		1
Holy Cross College		2	6					8
Howard College, Ala.				1				1
Illinois College		1						1
Illinois Wesleyan University		1			1	2		4
Indiana University		4			1	2	1	8
Indianapolis College of Law					1			1
Iowa College						2	1	3
Johns Hopkins University				2	1	2		5
Kansas Wesleyan University						1		1
Kentucky University		2			1		1	4
Kenyon College		1	1					2
Knox College		1				1		2
Lafayette College		2	4		1	1		8
Lake Forest University						1		1
Lebanon Valley College					1			1
Lehigh University				2		1		3
Leland Stanford, Jr., University		4	1	1	2	5	1	14
Louisiana State University		1				1		2
McMicken University					1			1
McPherson College						1		1
Manhattan College		3	1			2		6
Massachusetts Agricultural College			1					1
Massachusetts Inst. of Technology					1	1		2
Mercer University						2		2
Michigan Agricultural College				2			1	3
Michigan State Normal College							1	1
Middlebury College						2	1	3
Millsaps College			2					2
Mississippi Agricultural & Mech. Coll.					1		1	2
Mississippi College			1					1
Missouri Valley College					2	1		3
Montana Agricultural College				1			1	2
Mount Holyoke College		1			1	4	2	8
Mount Union College					3	1		4
Muskingum College						1		1
Nevada State University						1		1
New York College of Dentistry			1					1
New York Homeopathic Medical Coll.	1							1
New York Law School					2	2	1	5
New York State Normal School					1	1		2
New York University		1	5		4	20	1	31
Northern Indiana Normal College							2	2
Northwestern University, Ill.						2		2
Notre Dame University		1	2					3
Oberlin College		5	2	1	2	4		14
Ohio Normal University					1			1
Ohio State University						5	3	8
Ohio University						1		1
Ohio Wesleyan University		2	1		1	5		9
Olivet College						1		1
Pacific University						1		1
Pennsylvania Military College			1					1
Pennsylvania State College			1		1			2
Pittsburgh College						1		1
Polytechnic Institute, Brooklyn		1				1	1	3
Pomona College		1						1
Princeton University		11	30	7	3	3	2	56
Purdue University			1	2		1		4

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TABLE VI (*continued*)

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Total
Radcliffe College						5		5
Randolph-Macon College					1			1
Richmond College		2						2
Roanoke College		1						1
Rock Hill College			1					1
Rose Polytechnic Institute				1				1
Rutgers College			5	2	1	1	1	10
St. Francis College, Brooklyn			1					1
St. Francis Xavier College		10	1	2		1		14
St. John's College, Md.				1				1
St. John's College, Fordham, N.Y.C.		4	2	1		2		9
St. Lawrence Theol. Seminary, N.Y.	1							1
St. Mary's University, Texas						1		1
St. Peter's College, N. J.			3					3
Seton Hall College			1					1
Smith College					2	6	3	11
South Carolina College		1						1
Southwestern University						1		1
State Agricultural Coll., So. Dakota		1						1
State College of Kentucky			1		1		1	3
State University of Iowa		2	2	1	1		1	7
Stevens Institute of Technology				1			4	5
Syracuse University			1		4	3	1	9
Taylor University						1		1
Trinity College, Conn.		1	2	1		1		5
Trinity College, N. C.		1			1	3	1	6
Trinity University, Texas			1					1
Tufts College						1		1
Tulane University		1		1		1	1	4
Union College, N. Y.		4	1				1	6
Union Theological Seminary					7	5		12
University of Alabama			2					2
University of Arkansas		3						3
University of Buffalo			1					1
University of California		2			1	4		7
University of Chicago			1			8	1	10
University of Cincinnati					3	2		5
University of Colorado		3		1			2	6
University of Georgia		2		1		1		4
University of Idaho		1						1
University of Illinois		2				1		3
University of Kansas			1					1
University of Louisville				1				1
University of Maine							3	3
University of Michigan			1		4	11	5	21
University of Minnesota				1	4	4	1	10
University of Missouri		1	1		2	3	1	8
University of Nashville						1		1
University of Nebraska		4	1	1		4	3	13
University of North Carolina		2		1	1	1		5
University of Oregon		1				1	1	3
University of Pennsylvania			2	1		1		4
University of Puerto Rico			1					1
University of Rochester		1				1	1	3
University of the South		1	1		1			3
University of South Carolina			1					1
University of Tennessee					1	1		2
University of Texas				1			1	2
University of Utah		1			1			2
University of Vermont				1		2		3
University of Virginia			3			1	1	5
University of Washington		1			1			2
University of Wisconsin					3	1		4
University of Wooster		1				5		6
Upper Iowa University					1			1
Ursinus College					1	1		2

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TABLE VI (*continued*)

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Total
Utah Agricultural College				1				1
Vanderbilt University		1	1			1		3
Vassar College					6	12		18
Wabash College			1		1	1		3
Wake Forest College		1	1					2
Wartburg College, Iowa				1				1
Washburn College			1					1
Washington University						1		1
Waynesburg College					1			1
Wellesley College					2	12	1	15
Wells College						1	1	2
Wesleyan University			2	1	2	4	2	11
Western College					1	1		2
Western Maryland College			1					1
Western Reserve University	1					6		7
Whitman College					1			1
William Jewell College		1						1
Williams College		2	4	1	1	3	2	13
Wofford College		1						1
Woman's College, Baltimore, Md.						1		1
Worcester Polytechnic Institute							1	1
Yale University		26	27	9	3	8	1	74
Yankton College		1						1
Total graduates of domestic institutions	3	298	294	119	172	492	121	1499

(B)—HIGHER INSTITUTIONS IN FOREIGN COUNTRIES

Academy, Wolosin, Russia						1		1
Acadia College, N. S., Canada						2	1	3
Aoyama College, Tokio, Japan						1		1
Balliol College, Oxford, England						1		1
Basel University				1				1
Beth-Hamidrasch, Frankfurt a-M., Germany						1		1
Cambridge University, England				1				1
Chinzei College, Japan						1		1
Collège de Langres, France							1	1
Collegium Urbanum, Rome, Italy		2	1					3
Commercial College, Tokio, Japan					1			1
Dalhousie College, N. S., Canada						1	1	2
Doshisha College, Japan					1			1
Escuelas Pias Sarria, Barcelona, Spain				1				1
Euphrates College, Harpoot, Turkey						2		2
Gymnasium, Campobasso, Italy						1		1
Gymnasium, Kohn, Bohemia					1			1
Gymnasium, Venice, Italy						1		1
Gymnasium, Vysoke, Myto, Bohemia						1		1
Imperial University, Tientsin, China				2	1			3
Imperial University, Tokio, Japan							1	1
Keika Gakko, Tokio, Japan					1			1
Keiogyuku University, Tokio, Japan					3			3

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TABLE VI (*continued*)

(B)—HIGHER INSTITUTIONS IN FOREIGN COUNTRIES (*continued*)

1903–1904	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Total
King's College, London					1			1
King's College, N. S., Canada					1			1
Königliches Gymnasium, Leipzig, Germany				1				1
Lehrerinnenseminar, Karlsruhe, Germany						1		1
London University, England							1	1
Lycée, Braïla, Roumania				2				2
Lycée Mohère, France						1		1
Lyceum, Rome, Italy						1		1
Madras University, India				1	1			2
Manitoba University						1		1
Osgoode Hall Law School, Toronto, Canada					1			1
Ottawa University, Canada		1						1
Provincial Institute, Santiago, Cuba			2					2
Queen's University, Canada					2	1		3
Realgymnasium, Worms, Germany				1				1
Realschule, Pécs, Hungary				1				1
Semmon College, Tokio, Japan					1			1
St. Petersburg University, Russia				1				1
University College, Sheffield, England				1				1
University of Antioquia, South America			1					1
University of Berlin						1		1
University of Bishops College, Canada			1					1
University of France						1		1
University of Havana				6				6
University of Heidelberg						1		1
University of Leipzig				1		1		2
University of Paris		1						1
University of Toronto			1		3	4		8
Total graduates of foreign institutions		4	6	20	18	26	5	79
Grand total graduates of higher institutions	3	302	300	139	190	518	126	1578
Deduct for graduates of more than one institution		*30*	*5*	*9*	*45*	*108*	*21*	*218*
Total students holding degrees	3	272	295	130	145	410	105	1360
Total students enrolled	504	384	674	740	152	410	107	2971
Percentage holding degrees, 1904	.6	70.8	43.8	17.6	95.4	100.0	98.1	45.8
Percentage holding degrees, 1903	1.2	59.6	30.5	14.2	95.5	98.0	96.4	39.4

The number and nature of the degrees held by the students of the Corporation are shown in Table VII., wherein it appears that our 1360 college graduates hold 1706 degrees, which have been granted by 265 institutions.

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TABLE VII

NATURE OF DEGREES HELD BY STUDENTS

DEGREES	College	Law	Medicine	Applied Science	Political Science	Philosophy	Pure Science	Total
A. Degrees signifying, in general, a liberal education								
Bachelor of Arts		219	205	67	97	310	50	948
" " (Foreign equivalent)				5	7	11		23
" Science		25	48	41	18	53	44	229
" " (Foreign equivalent)				2				2
" Philosophy		22	18	4	9	32	6	91
" " (Foreign equivalent)					2			2
" Letters					3			3
" " (Foreign equivalent)		1				1		2
" Literature		3	4	1	5	8	3	24
" Pedagogy		1				2	1	4
" Divinity	1				10	12		23
" Sacred Theology					1			1
Master of Arts		24	7	2	44	128	24	229
" " (Foreign equivalent)				1		1		2
" Science			2	1	2	2	8	15
" Laws			1		1			2
" Literature			1		1	1		3
" Pedagogy					2	6		8
Doctor of Philosophy		1	1	4		8	5	19
" Pedagogy						3		3
Total	1	296	287	128	202	578	141	1633
B. Degrees signifying, in general, a technical education								
Bachelor of Laws	1	4	1		6	6		18
" Engineering				1		2		3
" Civil Engineering							1	1
Civil Engineer			1	5		1	2	9
Electrical Engineer		1		3				4
Mechanical Engineer				2			3	5
Mining Engineer						1	2	3
Graduate in Pharmacy			8			1		9
Doctor of Pharmacy			1					1
Bachelor of Medicine						1		1
Doctor of Medicine	1	1	10			3	2	17
Doctor of Dental Surgery			2					2
Total	2	6	23	11	6	15	10	73
Total degrees held	3	302	310	139	208	593	151	1706
Deduct for students holding more than one degree		*30*	*15*	*9*	*63*	*183*	*46*	*346*
Students holding degrees, 1904	3	272	295	130	145	410	105	1360
Students holding degrees, 1903	6	275	243	101	150	346	81	1202

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TABLE VIII

AGE OF COLLEGE AND APPLIED SCIENCE STUDENTS AT THE BEGINNING OF THE ACADEMIC YEAR, 1903–1904

	15–16	16–17	17–18	18–19	19–20	20–21	21–22	22–23	23–24	24–25	25–26	26–27	27–28	28–29	29–30	30–31	31–32	32–33	33 +	Average Age Yrs.	Average Age Mos.	Median Age Yrs.	Median Age Mos.	Number in Class
College:																								
Freshman	2	16	37	34	16	6	2	2	2		1									18	3½	18	1	118
Sophomore		3	18	41	25	13	7	2		2		1								19	2	18	9	112
Junior			5	18	32	28	19	3	2	2	4		1					1		20	4½	20	1	115
Senior				1	11	36	21	24	9	2	1	1	1	1					2	21	9 3/10	21	3	110
Special			2	5	4	8	11	2	2	3	4			4					4	23	1½	21	5	49
Applied Science:																								
First Year		1	21	53	37	35	11	9	2	4	1	1								19	6	19	1	175
Second Year			3	17	61	67	34	27	9	2	4	1	1			1				20	7	20	5	227
Third Year				2	16	37	31	15	19	15	4	2	1	2						21	11	21	6	144
Fourth Year					1	13	30	16	12	11	6	4	4	1	2	1		1	1	23		22	2	103

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The average age of the College Freshmen has increased from 17 years, 3⅞ months, in 1903, to 18 years, 3⅞ months in 1904, while the average age of first-year students under the Faculty of Applied Science has decreased from 19 years, 8⅝ months, in 1903, to 19 years, 6 months, in 1904. In 1899 the average age of College Freshmen was 18 years, 1½ months; in 1894, 17 years, 6 months.

Table IX. indicates the proper classification of the students who attended one or more courses of instruction in the various departments. In the detailed departmental statistics, which have been prepared, but are omitted in this report, the enrolment in the various courses of instruction given during the year by the departments has been indicated, reference being made to units of instruction. In Table IX. the repetitions caused by students pursuing more than one course in any department are removed, and this table thus furnishes a better criterion of the nature of any departmental clientele than the individual tables can.

From the table it will be seen that the department of chemistry gives instruction to the largest number of students in courses conducted under the auspices of the Corporation during the winter term, no account being taken in the table of courses given at Barnard or at Teachers College. Leaving the medical departments out of consideration, the departments of mechanical engineering, mathematics, and English, all of which impart instruction to over five hundred students, follow chemistry in the order named. The department of English draws the greatest number of students in the College, followed by the departments of history, Romance languages, Latin, economics, and Germanic languages, all of which instruct over two hundred College students.

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TABLE IX

CLASSIFICATION OF STUDENTS ATTENDING ONE OR MORE COURSES

1903–1904	College					Law				Medicine				
	Freshman	Sophomore	Junior	Senior	Special	1st Class	2d Class	3d Class	Special	1st Class	2d Class	3d Class	4th Class	Special
Anatomy				8						99	160			19
Anthropology		1	12	14	2									
Architecture		1	5	1	2									
Astronomy			1	6										
Botany	3	3	8	6	3									
Chemistry	32	40	35	18	12					58				
Chinese														
Civil Engineering		1	7	1										
Comparative Literature				3										
Dermatology													178	
Economics and Social Science		43	103	51	10	2	2							
Education			13	10										
Electrical Engineering			1	6	1									
English	117	114	91	59	31	1								
Genito-Urinary and Venereal Diseases												187		
Geology	2		5	4	1									
Germanic Languages and Literatures	78	61	39	10	18									
Greek	20	13	10	6	2									
Gynecology												187	178	
History and Political Philosophy	38	102	69	59	21									
Indo-Iranian Languages			2	4										
Laryngology													178	
Latin	115	50	25	9	11									
Materia Medica and Therapeutics											160	187		
Mathematics	106	39	29	10	15									
Mechanical Engineering	7	1	16	12	4									
Mechanics			4	6	1									
Metallurgy			1	4										
Mineralogy			6	4										
Mining				2			2							
Municipal and Private Law				22		121	152	110	1					
Music	3	4	5	5	8									
Neurology												187	178	1
Obstetrics											160	187	178	
Ophthalmology												187		
Orthopædic Surgery													178	
Otology												187		
Pathology				8						106	160	187	178	3
Pediatrics												187	178	
Philosophy		16	40	38	6									
Physical Education		3	2											
Physics	44	22	24	8	14					64				
Physiological Chemistry				5						62	101			12
Physiology				8						99	160			3
Practice of Medicine											160	187	178	2
Psychology		59	90	26	8									
Public Law and Jurisprudence			9	22	2	40	44	84	9					
Romance Languages and Literatures:														
A. French	69	59	44	12	18									
B. Italian		3	3	6										
C. Spanish	5	13	8	7	1									
Semitic Languages		1	3	8	1									
Surgery											160	187	178	2
Zoology			6	4										

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TABLE IX (*continued*)

OF INSTRUCTION IN THE VARIOUS DEPARTMENTS

Applied Science						Political Science		Philosophy		Pure Science					
1st Class	2d Class	3d Class	4th Class	Graduate	Special	Higher Degrees	Non-Candidates	Higher Degrees	Non-Candidates	Higher Degrees	Non-Candidates	Barnard College Undergraduates	Teachers College Undergraduates	Auditors	Total Number of Students
.....										1					287
.....						2		8		2		2	1		44
19	21	14	9	4	22								1	1	100
.....	8	19	20		1					4		11			70
31		1						2		22					79
157	167	63	32	1	33					32	1		1		682
.....						3		4	1						8
74	111	102	41	3	15										355
.....						1		37		1					42
.....															178
.....			1			130	7	39		2			2	2	394
.....						18		49		3					93
21	197	106	47	3	15					5					402
.....	1		1	4		4		123				6	2	4	558
.....															187
12	91	55	18	3	8					18					212
1	2		1			9		50	1	2		4	3	1	280
.....				1		1		42							95
.....															365
.....			1			117		32		1			1		441
.....								8							14
.....															178
.....						1		52					2	4	269
.....															347
156	164	16	1	1	16			4		22			6		585
152	188	123	86	6	25					7					627
22	190	116	79	2	7			2		32					461
25	121	99	70	5	15					9					349
45	51	21	6	1	9					7					150
1	24	62	27	2	10					3					133
.....						1									407
.....								6				49	19	2	101
.....															366
.....															525
.....															187
.....															178
.....															187
.....				1						3					646
.....															365
.....						14	2	87	1			11	3	3	221
.....															5
147	124	4		1	13			3		21	2				491
.....								1		7					188
.....										9	1				280
.....			1			4	2	45	2	1		8	2	4	527
.....						119	2	4		1					252
.....			1			7		39	1	2		3	1	1	336
.....						4		9		2					257
1	5	4	1			1		4							27
.....								21	1					1	50
.....	1							4		21	1				38
															527
															37

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During the academic year 1903–1904 the University conferred honors on 875 individuals, to whom were granted 987 degrees and diplomas. This information is summarized in Table X.

TABLE X

DEGREES AND DIPLOMAS GRANTED, 1903–1904

	Men	Women	Total
A. Degrees conferred in course			
Bachelor of Arts	102	80	182
" Laws	110		110
" Science (Education)	4	35	39
" " (Architecture)	10		10
" " (Chemistry)	4		4
Engineer of Mines	38		38
Civil Engineer	22		22
Electrical Engineer	23		23
Mechanical Engineer	21		21
Metallurgical Engineer	1		1
Doctor of Medicine	178		178
Master of Arts	118	42	160
Doctor of Philosophy	26	2	28
Total	657	159	816
Deduct duplicates *	*16*		*16*
Total individuals receiving degrees in course	641	159	800
B. Honorary degrees			
Master of Arts	1		1
Doctor of Letters	1		1
" Science	1		1
" Sacred Theology	1		1
" Laws	2		2
Total	6		6
C Teachers College diplomas granted			
Bachelor's diploma in education	16	124	140
Higher " "		1	1
Master's " "	17	6	23
Doctor's " "	1		1
Total	34	131	165
Total degrees and diplomas granted	697	290	987
Deduct duplicates †	*39*	*73*	*112*
Total individuals receiving degrees and diplomas	658	217	875

Table XI. is of a comparative nature, indicating the number of different degrees granted during the past four years.

* Distributed as follows: A.B. and A.M., 1; B.S. and A.M., 1; LL.B. and A.M., 8; M.D. and A.M. 2; E.M. and A.M., 1; C.E. and A.M., 2; Mech. E. and A.M., 1.

† In addition to those noted under *, the following duplications occur: Two Bachelor's Diplomas in Education, 2 women; A.B. and Bachelor's Diploma, 4 men, 30 women; B.S. and Bachelor's Diploma, 3 men, 29 women; A.M. and Bachelor's Diploma, 1 man, 6 women; A.M. and Master's Diploma, 14 men, 6 women; Ph.D. and Doctor's Diploma, 1 man.

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TABLE XI

NUMBER OF DEGREES AND DIPLOMAS GRANTED, 1901–1904

	1901	1902	1903	1904
A. Degrees conferred in course				
Bachelor of Arts (men)	84	109	101	102
" " (women)	50	50	47	80
" Laws	99	110	115	110
" Science (Education)	9	17	27	39
" " (Architecture)	10	15	7	10
" " (Chemistry)	8	6	10	4
Engineer of Mines	14	17	19	38
Civil Engineer	16	11	13	22
Electrical Engineer	19	23	17	23
Mechanical Engineer	13	21	19	21
Metallurgical Engineer		1	2	1
Doctor of Medicine	147	145	168	178
Master of Laws	2		1	
" Arts	109	155	147	160
Doctor of Philosophy	26	33	39	28
Total	606	713	732	816
Deduct duplicates	*10*	*10*	*15*	*16*
Total individuals receiving degrees	596	703	717	800
B. Honorary degrees				
Master of Arts	1		1	1
" Science	2			
Doctor of Laws	2	4	4	2
" Letters			1	1
" Sacred Theology			1	1
" Science	1	1	2	1
Total	6	5	9	6
C. Teachers College diplomas granted				
Higher diploma in education	3	4		1
Bachelor's diploma in education	86	104	105	140
Master's " "		28	19	23
Doctor's " "		3	3	1
Total	89	139	127	165
Total degrees and diplomas granted	701	857	868	987
Deduct duplicates	*40*	*69*	*73*	*112*
Total individuals receiving degrees and diplomas	661	788	795	875

Table XII. shows the chief specialties (major subjects) of the recipients of higher degrees (A.M. and Ph.D.) at Commencement, and the number of such degrees granted under each faculty.

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TABLE XII

(A)—SPECIALTIES OF RECIPIENTS OF HIGHER DEGREES, 1903–1904

MAJOR SUBJECTS	A.M.		Ph.D.		Total
	Men	Women	Men	Women	
Administrative Law	8		1		9
American History	3	5	1		9
Ancient History		2			2
Anthropology	2		1		3
Architecture	2				2
Botany	1	2			3
Chemistry	4	1	4		9
Chinese	1				1
Civil Engineering	1		1		2
Classical Archæology	1				1
Comparative Literature	1				1
Constitutional Law	13		1		14
Education	18	8	1		27
English	15	13	1		29
European History		2	1		3
Germanic Languages	4	2			6
Geology	2	1			3
Greek			1		1
International Law			1		1
Latin	1	3			4
Mathematics	2		1		3
Mechanical Engineering	2				2
Mechanics	2				2
Medicine	2				2
Mining	2				2
Palæontology			1		1
Philosophy	6	1	2		9
Physics	1				1
Physiology	1				1
Political Economy	6	1	2		9
Political Philosophy	1				1
Psychology	1			1	2
Roman Law and Comparative Jurisprudence	2				2
Romance Languages	3			1	4
Semitic Languages	1		1		2
Sociology and Statistics	8	1	3		12
Zoölogy	1		2		3
Total	118	42	26	2	188

(B)—HIGHER DEGREES GRANTED UNDER EACH FACULTY

FACULTIES	A. M.		Ph.D.		Total
	Men	Women	Men	Women	
Political Science	41	11	10		62
Philosophy	54	27	7	2	90
Pure Science	20	4	8		32
Applied Science	1		1		2
Fine Arts	2				2
Total	118	42	26	2	188

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SUMMER SESSION, 1904

A—Students Classified According to Sex

	General		Medical	Total	
Men	392	42.89 %	47	439	45.68 %
Women	522	57.11 %	—	522	54.32 %
	914	100.00 %	47	961	100.00 %

B—Students Classified as Old and New

	General		Medical	Total	
Previously matriculated	403	44.09 %	36	439	45.68 %
New students	511	55.91 %	11	522	54.32 %
	914	100.00 %	47	961	100.00 %

C—Students Classified According to Residence

	No. of Students			Percentage
North Atlantic Division:				
Connecticut		20		
Maine		3		
Massachusetts		24		
New Hampshire		1		
New Jersey		94		
New York:				
Outside of New York City	105			
New York City:				
Manhattan and the Bronx	306			
Brooklyn	119			
Queens	15			
Richmond	6	446		
		551		
Pennsylvania		41		
Rhode Island		1		
Vermont		1		
			736	80.52 %
South Atlantic Division:				
District of Columbia		1		
Florida		2		
Georgia		22		
Maryland		24		
North Carolina		4		
South Carolina		7		
Virginia		12		
West Virginia		3		
			75	8.21 %
South Central Division:				
Alabama		2		
Indian Territory		1		
Kentucky		3		
Mississippi		1		
Tennessee		2		
Texas		4		
			13	1.42 %

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	No. of Students		Percentage
North Central Division:			
Illinois	7		
Indiana	7		
Iowa	5		
Kansas	1		
Michigan	5		
Minnesota	4		
Missouri	9		
Nebraska	1		
North Dakota	1		
Ohio	18		
Wisconsin	6		
		64	7.01 %
Western Division:			
Arizona	1		
California	2		
Colorado	4		
Utah	3		
Washington	1		
		11	1.20 %
Insular Territories:			
Hawaiian Islands	1		.11 %
Puerto Rico	1		.11 %
		2	
Foreign Countries:			
Canada	6		.65 %
Central America	1		.11 %
England	2		.22 %
India	1		.11 %
Italy	1		.11 %
Japan	1		.11 %
South Africa	1		.11 %
		13	
		914	100.00 %

Of the medical students, 28 came from New York (24 from Greater New York), 10 from New Jersey, 2 from Connecticut, and 1 each from Rhode Island, Virginia, Kentucky, Kansas, Hawaiian Islands, Canada, and Mexico.

D—Students Classified According to Previous Preparation

Institutions	Graduates of		Partial courses in		Total	
Colleges	280	30.63 %	174	19.04 %	454	49.67 %
Professional schools for teachers	199	21.77 %	80	8.75 %	279	30.52 %
Other secondary or higher institutions	106	11.60 %	53	5.80 %	159	17.40 %
	585	64.00 %	307	33.59 %	892	97.59 %
No secondary or higher training	—	—	—	—	22	2.41 %
	—	—	—	—	914	100.00 %

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Of the 47 medical students, 36 were graduates of colleges or medical schools, and 11 had taken partial courses in medical schools.

E—Students Classified According to Teaching Positions

Elementary schools	349	38.18 %
Secondary schools	151	16.52 %
Higher educational institutions	32	3.50 %
Normal schools	33	3.61 %
Superintendents	9	.99 %
Special teachers	34	3.72 %
Private school teachers	16	1.75 %
	624	68.27 %
Not engaged in teaching	290	31.73 %
	914	100.00 %

Of the medical students, 12 were physicians and 35 were students (32 P. and S., 2 Long Island Hospital Medical College, and 1 Medical College of the State of South Carolina).

F—Aggregate Attendance on Courses

Subjects	No. of Courses	No. of Students	Percentage of Total Enrolment
Anthropology	1	13	0.58 %
Chemistry	6	119	5.29 %
Domestic Science	2	14	0.62 %
Economics	2	28	1.25 %
Education	8	369	16.42 %
English	10	295	13.12 %
Geography	3	55	2.45 %
Geology	3	21	0.93 %
German	10	174	7.74 %
History	4	122	5.43 %
Latin	4	67	2.98 %
Manual Training	4	124	5.52 %
Mathematics	9	217	9.65 %
Mechanical Drawing	4	35	1.55 %
Music	3	34	1.51 %
Nature Study	1	19	0.88 %
Philosophy	4	48	2.13 %
Physical Education	7	149	6.62 %
Physics	7	86	3.82 %
Physiology	3	23	1.02 %
Psychology	5	138	6.13 %
Romance Languages	11	98	4.36 %
Total	111	2248	100.00 %

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G—AGGREGATE ATTENDANCE ON COURSES, 1900–1904

Department	Total enrol'nt 1900	Total enrol'nt 1901	Total enrol'nt 1902	Total enrol'nt 1903	Total enrol'nt 1904
Anthropology	—	—	—	13	13
Botany	28	—	—	—	—
Chemistry	—	—	59	72	119
Domestic Science	—	—	—	—	14
Economics	—	—	—	21	28
Education	458	495	462	702	369
English	237	238	174	280	295
Fine Arts	—	45	59	59	—
Geography	59	—	38	—	55
Geology	—	—	—	25	21
German	—	67	101	152	174
History	15	71	51	134	122
Latin	—	14	51	50	67
Manual Training	21	44	72	112	124
Mathematics	73	71	108	164	217
Mechanical Drawing	—	—	—	—	35
Music	—	—	—	48	34
Nature Study	—	—	21	23	19
Philippine Islands	—	—	—	11	—
Philosophy	24	58	53	62	48
Physical Education	42	67	88	105	149
Physics	40	56	82	68	86
Physiology	—	—	—	10	23
Psychology	88	155	89	92	138
Romance Languages	—	20	51	110	98
Total	1085	1401	1559	2313	2248
Number of courses given	28	43	59	78	111

Respectfully submitted,

RUDOLF TOMBO, Jr.,

Registrar.

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REPORT OF THE SUPERINTENDENT OF BUILDINGS AND GROUNDS

To the President of Columbia University in the City of New York,

SIR:

I beg to submit herewith the report of the Department of Buildings and Grounds for the year ending June 30, 1904.

In this, the first annual report to be submitted by the Superintendent of Buildings and Grounds, it seems fitting to review briefly the history of this department since its organization in July, 1886.

The buildings of Columbia College were at that time all located on the 49th Street site, which had an area of less than two acres. They were six in number, with a total floor area of 190,000 square feet. The heating plant had a capacity of 375 H.-P., the two small dynamos (now used as experimental motors in our electrical-engineering laboratory) a capacity of 60 kilowatts, and three fans made a pretence at furnishing ventilation. The consumption of fuel per annum was about 1400 tons. The employees under the control of the Superintendent were twenty-two in number, and the total cost of operating and maintaining the buildings was $33,000. The work of organization was ably carried out by Mr. Holbrook F. J. Porter, who left in 1890 to become the Assistant Chief Engineer of the Columbian Exposition. After a few months, during which Mr. W. H. H. Beebe was Acting Superintendent, he was succeeded by Mr. Edward A. Darling, who had the good fortune to come to Columbia at a time when the project of establishing the University in new buildings and upon a new site was about to be taken up. Mr. Darling's share in the planning and execution of this important enterprise is of too recent date to require detailed mention on my part,

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and I need only refer to the minutes of the meeting of the Board of Trustees of February, 1898. After having successfully brought Columbia to her new home, Mr. Darling in 1899 joined Thomas A. Edison in the planning and construction of the elaborate plant of the Edison Portland Cement Works, where he remained until his death a little over a year ago. He was followed by the present incumbent, Frederick A. Goetze, who had been Assistant Superintendent of Buildings and Grounds. Mr. H. H. Morrison succeeded the latter in that position, during the past year accepted the appointment of Constructing Engineer of public schools in St. Louis, Mo., and recently performed the duties of Acting Commissioner of school buildings of that city for several months.

In 1891 the buildings and plant of the College of Physicians and Surgeons were placed under the control of this department; the following year two stories were added to the 60th Street building to provide for more laboratories, and a few years later the erection of the Institute of Anatomy and of the new Vanderbilt Clinic and Sloane Maternity Hospital was begun, the last building being completed in 1897. During 1895–96 and '97 the buildings on Morningside Heights were under construction. In 1899–1900 another story, equal in volume and floor area to the entire Engineering Building, was added to University Hall, and Earl Hall followed in 1901–02. In 1902 the Barnard College buildings were included, when Fiske Hall was converted from a dormitory to a hall of science. In 1903, with the erection of the Speyer School and the Physical Education building, the Teachers College buildings were added, and within the last month the College of Pharmacy has swelled the list, until now the Department of Buildings and Grounds is charged with the care, maintenance, and operation of twenty-six buildings, occupying an area of thirty-five acres, with an estimated present value of land, buildings, and equipment of about $18,000,000. The floor area has increased since 1886 to 1,375,000 square feet (exclusive of the buildings now under construction), the capacity of the heating plants to 4000 H.-P., of the electric-lighting plants to 1070 kilowatts; sixty-nine fans, varying from four to nine feet in diameter, moving 80,000,000 cubic

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feet of air an hour, now supply ventilation, and the aggregate amount of coal consumed in the various plants is about 11,500 tons per annum. During the year 1903–4, 250 employees, including clerks, draftsmen, engineers, foremen, skilled mechanics, laboratory attendants, porters, and cleaners were on the pay-rolls of the department at one time, and the total cost of operating and maintaining the buildings and plant for this year was $200,000. It is possible to obtain some idea of the amount of business transacted at the present time in connection with this department by merely referring to the operation of the post-office which is connected with the office of the Superintendent in the Library building. Here during the past year over $8000 in stamps were sold; $6000 in money-orders issued; 260,000 letters, 87,000 pieces of second-, third-, and fourth-class matter, 63,000 inter-departmental letters, and 1200 pieces of registered mail—a total of over 411,000 pieces in all—were received and distributed among the various buildings. It should be remembered that this does not include the mail for Barnard College, Teachers College, and the School of Medicine, nor the printed announcements issued by the University.

It is to be regretted, from a purely economic point of view, that the greater part of a plant of the magnitude indicated above should be compelled to shut down for nearly four months in the year, and it is to be hoped that the day is not far distant when it will be found possible to keep all our buildings in active operation throughout the entire twelve months. No commercial plant could afford to shut down for so long a period, and I might venture to suggest, carrying the analogy further, the possibility of reducing the per-capita cost of our educational output by following along commercial lines in this as well as in other respects. So far as the cost of operation and maintenance of the buildings is concerned, this would increase very little in proportion to the far greater use which could be made of the entire plant during approximately a third of the calendar year. The Summer Session is, of course, a step in this direction, and may perhaps be the means toward accomplishing the desired result.

It has been the policy of the Trustees to place the work of

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the Department of Buildings and Grounds on the high plane of mechanical engineering, with the result that the department has been of service to the University in many ways in the rapid development of the past fifteen years. Thus it designed and supervised the erection of the power plant at the School of Medicine and the central heating and lighting plant at Morningside Heights. It has designed special furniture and equipment frequently adopted in our sister universities, it maintains its own shops and organization for the repairs and betterments on the University buildings and for the construction of much of the special furniture, it supervises the planning and construction of new buildings, and investigates in a scientific manner important questions connected with the economical administration of the plant of the University.

During the years 1900–02, when there was a lull in the construction of buildings, special study was given to the question of power-house economy connected with the consumption of fuels. This resulted in an annual saving in the above-mentioned plants of over $7600 per annum; and during the past year, notwithstanding the severe winter and a higher coal market, made it possible to reduce the annual cost of fuel at Teachers College over 30 per cent., resulting in a saving of over $2000 as compared with the previous normal outlay per annum.

The unification of the control of the buildings of the separate corporations of the University under one department has also made it possible to attain this result, and to make other savings in the care and maintenance of the buildings many times larger in amount.

The year which has just drawn to a close has been a most interesting one, strongly reminiscent of the days of 1895–96 and '97. No fewer than six new buildings, with a floor area of 306,000 square feet,—more than one and a half times the floor area of the 49th Street buildings in 1897,—and representing, with their equipment, a prospective outlay of over $2,000,000, have been either in course of erection or of planning. These are the Physical Education building at Teachers College, the building for the proposed School of Journalism,

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Hartley Hall and its sister dormitory, the Chapel, and the School of Mines. Work on the Physical Education building is progressing rapidly, and although strikes and lockouts covering an aggregate period of over six months have greatly delayed its completion, we hope to have this building ready for occupancy when the University opens in September.

As the dormitories were to be located on South Field, it was necessary to first decide upon a plan which would include all the buildings to be erected upon this new territory, both now and in the future. This work was intrusted to Messrs. McKim, Mead & White, the architects who drew the plans for the plot north of 116th Street. They have followed the same simple, dignified scheme for South Field, and, as at present approved by the Trustees, the plan includes ten dormitory buildings with an estimated total capacity of about 3200 rooms, and two academic buildings which will be located on the south side of 116th Street, one at the corner of Amsterdam Avenue and the other at the corner of Broadway, balancing in every respect the proposed Law School and College Hall buildings on the opposite side of the street. A careful inspection and study of the dormitories at most of our larger universities made it very evident that the high cost of land, the need of making the dormitories a source of revenue, and other economic conditions obtaining in a large city would compel us to depart from the traditional four- or five-story dormitory and work out our problem along new lines. The result is that, while the height of the dormitories will be the same as that of our present buildings, it has been found possible to secure ten stories each nine feet in the clear, with an average of thirty rooms on a floor, or 606 rooms in the two buildings. The dormitories will be provided with electric elevators, hot and cold water in every bedroom, shower-baths and lavatories on every floor, steam heat and electric lights. A large and attractive room, sixty feet square, on the first floor of each building, will serve as a general assembly room, and it is hoped will fill in part the functions of the student clubs and unions at other universities. Special attention has been given to light, air, and sanitation, and we hope to give our students better accommodations for less money

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than can be obtained anywhere in the vicinity of the University. The contracts for these buildings have been let, and the work of excavation is under way. Unless labor troubles interfere, they will be ready for occupancy in September, 1905, and it is hoped will mark a new era in student life at Columbia.

The building for the School of Mines, which we hope also to complete by September, 1905, will be situated on Broadway, just south of Earl Hall, and will be similar in size and design to the School of Engineering. It comes at a most opportune time to relieve a congestion in Havemeyer and the School of Engineering, which has become very serious. Not only will this building provide the Departments of Mining and Metallurgy with increased facilities for their work, but, by releasing one and a half floors in the School of Engineering and two thirds of a floor in Havemeyer, will afford much needed relief for other technical departments. In the Department of Chemistry, for instance, so great has been the increase in the number of students that four men are working in the space designed for one. While the area to be vacated by the Department of Metallurgy will relieve this situation temporarily, it is imperative that new quarters be provided for the Department of Architecture in the near future, so that the entire Havemeyer building may be given over to Chemistry.

This department is only one of many which are confronted with the same conditions. At the School of Medicine it has been necessary during the past year to crowd and double the occupancy of rooms in order to provide accommodations for the increase in the teaching force. A recent review of the situation at Teachers College has disclosed a similar condition, and it will not be long before a building on 121st Street, connecting the new Physical Education building and the Horace Mann School, will be absolutely necessary. The same is true of the Law School, and a building is needed, not only to provide more ample quarters for this School, together with the Schools of Philosophy and Political Science, but also to release much needed room for Library purposes. It should be remembered that the Library is now crowded into approxi-

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mately one third of the building originally designed for its use. A new College Hall is also needed, both for the purpose of releasing the space now occupied by the Departments of English in Fayerweather for the use of the Departments of Physics, and Mechanics, and for the accommodation of the Departments of Latin, Greek, and Mathematics, which would be rendered homeless by the erection of a Law Building on the site of the smaller structure which they now occupy.

Another of our most urgent needs is the completion of University Hall. Not only does this incomplete building present an unsightly appearance, but every year we are made painfully aware of the inadequacy of the gymnasium for Commencement purposes, and for functions such as the coming sesquicentennial celebration. The constantly increasing number of graduates and the addition of the College of Pharmacy will increase this difficulty. In 1905 we will in addition be confronted by the necessity of providing a Commons for the four or five hundred men who will live in our dormitories. The only solution of the difficulty will be to confiscate the large apsidal room on the north side of the first floor of the building now fitted up as an auxiliary gymnasium, and combine the officers' lunch-room with that now occupied by the kitchen, providing for the officers as best we may, possibly in the large dining-room in the south end of the building. Under these conditions, the Commons will of necessity be operated under great difficulties and disadvantages as compared with similar enterprises in other institutions.

The completion of University Hall would relieve this situation entirely. It would provide a spacious academic theatre for our large and important gatherings and proper accommodations for the Commons. The top floor could be made the permanent home of the Department of Architecture, and the forty or more rooms provided for in the plans would greatly relieve for some time to come much of the congestion to which attention has already been directed. It would cost about $1,000,000 to complete this building, but now that the dormitories and the School of Mines have been provided, this would most effectively meet the general and pressing need. The work of completing the building must be planned so that

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the material for at least another story shall be on the ground before June 1st. If building operations are begun immediately upon the close of the University, it will be possible to again have the present first-floor ready for occupancy by the opening of the University in September. Work can then proceed without interfering with the occupants of the building, who will not be disturbed again until the following summer. The plans are prepared, and all that is needed is the money with which to proceed.

The need for a dormitory at Barnard College, on account of the conversion of Fiske Hall into a science building, has made it desirable to adopt a plan for the development of Milbank Quadrangle, and a study of the problem, treating this site as the west façade of the University group of buildings, has been submitted to the Trustees of Barnard College. A building for this purpose will cost about $300,000.

In connection with the need of new buildings, attention is drawn to the necessity of making proper provision for their operation and maintenance. This includes heating, lighting, water, repairs, and service, and represents an annual outlay of approximately two per cent. of the cost of the building. It varies, of course, somewhat with the character of the building, a laboratory building naturally requiring a larger annual outlay than one devoted entirely to class rooms and studies. Unless this provision is made in the form of endowment, it will be seen that each new building adds largely to the already heavy burden on the University funds.

The absorbing interest aroused by the construction of new buildings must not lead to a neglect of a consideration of their surroundings, and we should give more attention to the development of the grounds, so that they may be brought up to the high standard of our architectural scheme. An excellent endeavor in this direction has been made, limited, however, by the scarcity of funds; but there is need of a complete scheme, planned by a master hand, which may be followed systematically. In this respect the University is restricted by its location in a city, and we cannot hope for the broad acres which add to the attractiveness of many of our sister universities, but by desiring only the best we may make

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our institution and its surroundings a source of pride and inspiration to our students, alumni, and fellow citizens.

While speaking of the development of the grounds, I may also mention the desirability of permanent iron gates at the 119th-Street entrance on Amsterdam Avenue; also the necessity of additional lighting for the approach to the Library at night, which would be accomplished by bronze *torchères* on the buttresses of the Library steps. These and other improvements of a like nature might very well take the form of memorials contributed by the various classes.

Respectfully submitted

FREDERICK A. GOETZE

Superintendent of Buildings and Grounds

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LIBRARY

REPORT OF THE LIBRARIAN

FOR THE ACADEMIC YEAR ENDING JUNE 30, 1904

To the President of Columbia University
in the City of New York,

SIR:

I have the honor to submit the report of this Library for the year ending June 30, 1904.

Except for that steady advance which always follows even reasonably intelligent administration and methods which have been at all wisely chosen, there is very little change in Library affairs to be noted. The continued and necessary occupancy of a large part of this building for instructional purposes still leaves us hampered for room; and the increase in the number of our officers and students, which is much more rapid than the increase in our financial resources, still presents many perplexing problems which must be solved, not as we may wish nor always as may be most satisfactory, but as we may be able to meet the demands of each day. This report must cover what we have accomplished, rather than what we wish or propose. With plans for our further development, you are sufficiently acquainted by personal conference.

We have been so fortunate as to be able to retain during the year the services of the Supervisors and the older members of the staff. Some of these have been tempted by offers of higher salaries elsewhere, but their long connection with this Library and this University, and the pleasure which comes as their share of academic life, have proved to be bonds which are strong enough to hold them at Columbia.

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Just how long this good fortune will continue is, of course, a question. The library world is in some such ferment as that which has been known in the educational world during the last ten or fifteen years. We are still in the beginning as to extended preparation on the one hand, and as to reasonable recognition on the other. When the public comes to understand that a new profession is forming, perhaps has already formed, and appreciates just what this profession means and its practical value in every community and in every educational institution, the question of compensation will adjust itself—as it adjusts itself in all other professions.

Just at present the situation is complicated by the fact that the card-catalogue system is being successfully introduced into the business world. The more important law firms, the insurance companies, railway companies, large publishing houses, in fact nearly all forms of extended commercial enterprise, are finding that the card system is exceedingly effective in classifying the details of their business, their correspondence, and all their records, and in placing these details literally at their finger-tips. This change in business methods has created a sudden and unexpected demand for those who know something of catalogue systems, and this demand is necessarily met by recent graduates from the Library Schools, or by those who have had experience in library work. The business world offers better salaries than most libraries are able to pay, and the result has been a depletion of the ranks of library workers which would be disastrous were it not for the unusual intelligence and enforced greater activity of those who remain. Several of the most satisfactory of our minor workers have left us during the year, accepting business positions in which they are able to earn from thirty to fifty per cent. more than we are paying—and with better promise of promotion and increased salary than are possible with us at present.

The demands for economy in all departments of the University have been met, with us, by most painstaking saving in every direction which would not mean impairment of standards and efficiency. As one illustration only, we have gone through the year without using the large illuminating

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globe in the dome, with lights turned on but half the desks in the Reading-Room, and using less than half the usual number of lights in the stacks and in the seminars. This has been attended by considerable inconvenience, but in this as in other directions in which expenditures have been minimized we have been glad to do our share in lessening the burden carried by the Trustees.

For the first time in many years we have undertaken to secure a somewhat accurate statement of the number of volumes in each of the great divisions of the Library. This count was made about the middle of the current year, many volumes have been added to the Library since, many volumes were then passing through the different administrative departments of the Library on their way to the shelves, the total number of lost and missing books was considered—and under all these conditions we estimated that the total results would vary about five per cent. from the records of the accession books. As the variation proves to be almost exactly that which we had estimated, the count seems to have been sufficiently accurate to be satisfactory as well as of general interest.

Using even thousands only, the report is as follows:

Bibliography, 18,000; Philosophy, 9000; Religion, 7000; Sociology, 87,000; Philology, 1000; Science, 25,000; Useful Arts, 16,000; Fine Arts, 4000; Literature, 59,000; History, 51,000; General Reference Library, 6000; Avery Library, 17,000; Phœnix Collection, 7000; Special Columbiana, 2000; Book Rarities, 2000; temporarily loaned to Departments, 31,000; Mary Queen of Scots Collection, 550; Holland Society deposit, 600; American Mathematical Society deposit, 1200.

During the current year, following the general plans of unification in the administration of all University affairs, the responsibility of the Librarian of the University was extended to cover the libraries of the various Schools and Colleges affiliated with Columbia, and such of the collections temporarily loaned the Departments as require a custodian. The results of this action cannot be determined or reported till the close of another year.

Because of this unification, however, it is possible to grant

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extended opportunities to those desiring to familiarize themselves with the various forms of library work and administration. Accordingly we have given notice that we will receive five apprentices for the coming academic year, the apprentice-year to be forty weeks in length. No formal entrance examination will be required, but preference will be given to those who are college-bred. The minimum educational preparation must be at least the equivalent of two years' work in a college of approved standing. The work of the apprentice-year will be divided between the following departments: Order, Accounts and Accession; Cataloguing and Classification, Periodicals and Binding, Loans, and general Bibliography. No compensation will be given other than the personal instruction, the opportunity to observe, the opportunity for practice-work under competent supervision, and the fact that, although no position is guaranteed, in selections for the staff of this Library preference will naturally be given to those who have had this training and experience.

The work of apprentices will be under the general direction of Miss Prescott, Supervisor of Cataloguing and Classification.

The relations existing between the various administrative departments of the Library and the officers of this University have been unusually pleasant and satisfactory during the year. It is hardly too much to say that there has been a very decided gain in the way of this co-operation, and a gain which has added much to the efficiency of Library administration. As a matter of fact, this results in placing at the service of the Library staff the constant and competent advice of the heads of the various Departments as well as other instructional officers. Practically this means an increase of the staff itself by a large number of most expert workers: animated not only by general interest, but by personal and departmental motives as well. I wish to make due and sincere acknowledgment of the very valuable assistance which has come to this Library at all times during the entire year from this source.

I desire also to express renewed appreciation of the helpful co-operation of the Superintendent of Buildings and Grounds. The relations between his department and the Library are

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necessarily very close, and the demands which our work make upon his department are unusually exacting. It is with pleasure that I record a year of extremely satisfactory service, and of peculiarly acceptable official relations.

For the details of this report I am again under obligations to the Supervisors of the different departments; and again am doing little more than editing and condensing for your greater convenience the admirable *resumés* of their work which they have sent me.

Order Department

The custom of having current books sent from the publishers to the shelves of this department, for inspection, has been continued, and with increasing satisfaction. This year we have retained 210 volumes as compared with 253 ordered in this way during the last financial year—the first year of this experiment.

There have been sent out 4085 orders, of which 1462 were from second-hand catalogues. Of these latter 676 were reported back as sold before our orders reached the dealers. Of our total orders (including outstanding orders from last year), 3945 were filled, 1293 are still on file, and 102 were cancelled.

During the current year this department has been responsible for the orders sent out for the Ella Weed Library (Barnard College), and for the reference library at the College of Physicians and Surgeons. The total number of these additional orders has not been so great as to demand extra assistance, but it is entirely evident that if this work is to be continued for these and other co-ordinated Colleges and Schools, additional help will be required.

During the year there have been 15,812 volumes added to the Library (not including gifts which were duplicates). Of these 10,892 volumes came by purchase, 298 by exchange, 4049 by gift, 311 by deposit of Societies, and 262 by binding pamphlets. The total number of volumes in the Library, as shown by our accession books, is 362,167. In addition to these bound volumes we have about 100,000 pamphlets, and about 30,000 dissertations which we have classified and catalogued and have made available, but have not accessioned.

The number of continuations received by parts has been 371.

This department has continued in charge of Readers' Cards, of which 229 have been issued during the year and 42 have been renewed from last year. We are now issuing these cards only to those who expect to enjoy these privileges for a full

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year. Applications covering a shorter period are cared for directly at the Loan Desk.

This department issues the cards for the seminar rooms, this year 304 in number.

The department is sadly in need of increased room, the Supervisor and three assistants working on a floor-space of not to exceed 350 square feet—without possibility of present increase. There is also need of some additional shelving for the increasing number of books which come out in parts which must be held until the book is complete, for the constant additions to the collection of reference books, and for various accessions which for one reason or another must be held for some time before being passed on to other departments.

We have been more than usually successful this year in completing valuable sets of periodicals and serials, among which are the following:

Abhandlung. d. k. böhm. Gesellschaft, Allgemeine Zeitung, Annalen der Sternwarte in Leiden, Annalen des K. K. Naturhistorischen Hofmuseums, Annales politiques et littéraires, Annales des mines de Belgique, Army and Navy Journal, The Architect, Archives diplomatiques, Astrophysische Nachrichten, Bibliothèque de l'école des hautes études, Blätter des Vereines f. Landeskunde, Bulletin de la Société de Neuchâtel, Bulletin de la Société des sciences, Chambers's Journal, Commercial and Financial Chronicle, Elektrochemische Zeitschrift, Geographisches Jahrbuch, Jahrbücher der Chemie, Leipziger Illustrierte Zeitung, Magazine of Western History, Mechanics' Magazine, Memoirs of the American Academy of Arts and Sciences, Mitteilungen d. K. K. Geographischen Gesellschaft, Neurologische Centralblatt, Nova Acta, The Observatory, Open Court, Le Proscrit—Journal de la république universelle, Publications of the City History Club, Publications of the Scottish History Society, Publications of the Scottish Text Society, *Recueil des travaux rel. à la philologie et archéologie,* Reimann's *Färber-Zeitung, Le Révolte, Revue de la législation de mines, Revue générale du droit international publique, Rivista di diritto internazionale, Sidereal Messenger,* Society of Naval Architects—*Transactions, Stenographische Berichte of the Sessions of the German Reichstag, Transactions of the Royal Irish Academy, Western Electrician, Wochenschrift für Klassische Philologie, Zeitschrift f. aegyptische sprache, Zeitschrift der Deutschen Ingenieure, Zeitschrift f. Psychologie u. Physiologie d. Sinnesorgane, Zeitschrift für Schulgesundheitspflege.*

Among the most important purchases of the year are the following:

Kirchmann's *Philosophische Bibliothek,* in 94 volumes, beau-

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tifully bound; the great *Corpus Scriptorum Ecclesiasticorum Latinorum*, published by the Vienna Academy in 1866 and the following years; Pezius, *Bibliotheca Ascetica Antiqua-nova*, Ratisbonæ, 1723, 12 volumes; *Proces-verbal des Séances de Chambre des Pairs de France*, Paris, 1814–1840, 146 volumes; a remarkable set of 310 privately printed monographs, consisting of critical reviews of the works of all the candidates for the French Academie des Sciences between 1852 and 1894; a collection of more than 200 broadsides and pamphlets relating to the German Revolution of 1848; the exceedingly rare works of Michael Servetus—for which he was burned—and the original edition of Calvin's *Defensio Orthodocæ Fidei de Sacra Trinitate contra Prodigiosos Errores, Michaelis Serveti*, 1554; the very rare Julius Cæsar Vanini's *De Admirandis Naturæ Reginæ*, etc., Paris, 1616; Calepinus' *Dictionarorum*—the personal copy of the great Basel publisher, Johannes Froben, with his autograph signature repeated twice on the fly-leaf; the first edition of Demosthenes' works, Venice, 1504; the first edition of Pomponius Mella, *De Situ Orbis*, Venice, 1478; the great Manutian edition of Cicero, superbly bound in old morocco, printed by Aldus in 1581–83; a beautiful copy of Livius's works, Venice, 1482; Cassiodorus' works, printed in 1491; the first edition of Plutarch's works, printed in 1509; the rare work of John Knox, *An Historical Journal of the campaigns in North America for the years 1757, 1758, 1759, and 1760*—two volumes, London, 1769; the original editions of James Otis's works; some of the works of Sir "Harry" Vane. Last, but not least, we found on our shelves the first edition (1543) of Copernicus' works, which probably came to us with the Struve collection, and is one of the greatest treasures of which a library may be proud.

The Supervisor of this department, Miss Margaret Van Zandt, concludes this year twenty years of faithful and acceptable service in this Library. Her own reference to this is so interesting that I venture to quote it almost entire:

"In 1884 Mr. Dewey had fairly well started the card catalogue of the 50,000 volumes which the Library then contained. The only catalogue previous to this was on written slips pasted on sheets of paper and kept in paper boxes. The work of accessioning was commenced that year; and after the volumes then in the Library had been entered, the work of accessioning, ordering, caring for binding, entering gifts, and acting as secretary to the Librarian was done by one person. There are now nine members of the staff employed in carrying on these various duties.

"The selection of books was made principally by the Li-

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brarian, though some of the officers sent in requests occasionally. There was no division of the funds, the amount was small, and it was 'first come first served.' With the energy and persistence for which he is noted, Mr. Dewey secured many gifts for the Library, and the number of volumes grew rapidly. After Mr. Dewey's resignation appropriations for books were increased somewhat, and ordering gradually became a definite division of our work. With larger funds at their disposal, officers took more interest in ordering such works as they needed. The Library became an acknowledged part of the University, and gifts of money as well as larger appropriations caused its rapid growth. In 1894, when a special fund of $10,000 was presented to the Library for the purchase of books, the President divided this amount among the various Departments, except the Science Departments for which the Barnard Fund was reserved. This generous donation, continued ever since, has been of inestimable value to our Library.

"The Library of twenty years ago, with its 50,000 volumes, its catalogue just begun, its staff of six assistants and one page, forms a vivid contrast to our stately Library of to-day, with 362,000 volumes, a staff of about 60, a comprehensive and incomparable catalogue, and a spirit of co-operation, enterprise, and progress in every department of its work. There is always a satisfaction and an interest in watching the building up of an institution which stands for the betterment of mankind; and when one has given a helping hand, though only in a very small way, in this upbuilding, there is a justifiable pride in what has been accomplished. That I am proud of Columbia Library of to-day is because I have seen its gradual development from small beginnings to its present greatness, and because I have been permitted to contribute my mite toward that development."

Twenty years' loyal and competent service, such as Miss Van Zandt has rendered, cannot be considered a "mite"—but a generous contribution.

The Catalogue Department

There have been added to the catalogue this year 69,875 cards. Of these 3842 were received at the nominal cost of $57.41, because of our co-operation with the American Library Association in the cataloguing of scientific periodicals. From the Library of Congress we received 2845 cards, at a cost of $33.28. We are not yet able to determine that there is any actual saving to us in using the cards issued by the Library of Congress, partly because the total number of cards we receive forms such a small part of the number which we add annually to our catalogue: but

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the cards are so complete in the information contained and are so satisfactory in every way that at present at least we are not willing to discontinue this service.

The classifying and cataloguing of dissertations has been interrupted quite often during the year, by the pressure of other work, with the result that not all of the nearly 30,000 dissertations now in our hands are yet catalogued; but 7170 have been cared for this year and 9471 cards have been made. Those remaining uncatalogued are available by subjects, through a loose and somewhat hurried classification. We have been able to care for nearly all the current dissertations received through exchanges; and we are keeping a list of these by universities to aid us in future orders.

Last year we made our first experiment with a card shelf-list—that prepared for the Avery Library. This was so satisfactory that it was determined to change our system from shelf-list books to a card shelf-list as soon as possible. The interest in this undertaking has been so great that members of the staff have volunteered to devote an hour each day to copying the old entries; and in this way about 2000 cards have been made for the shelf-list of the general Library, without serious loss in other departments of work. This has not only saved the pay of at least one additional worker, but at the same time the cataloguers have gained proficiency in the use of the typewriter before taking up the new method of work in this department.

As a result of very careful experiments made last year, we have determined to dispense with the service of copyists, each cataloguer making her own cards directly from the books. This has made it necessary for each cataloguer to learn the use of the typewriting machine. The experiment is so recent that we can hardly tell results as yet, but in the end the saving ought to be considerable, without lowering in any way the high standards already established for all our catalogue work.

Bibliography and Serials

The wisdom of advancing the work in Bibliography by establishing the Bibliographic Museum and its collections, and by a rearrangement of the work of the Serial Department by which much more time was available for specific work in Bibliography, has been clearly shown by the rapid growth of this work until it is practically a department by itself. Three exhibitions have been held during the year: one of book-bindings and books about binding, from the collection of Mr. Samuel P. Avery; one of illuminated manuscripts of the Middle Ages from the libraries of Mr. J. P. Morgan and other well-known collectors of this

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city; and an exhibition of a miscellaneous character, of books belonging to Columbia. Both in the number and character of visitors these exhibitions were unusually successful, the capacity of the room being tested again and again on each afternoon. It was noted with pleasure and satisfaction that a large number of students and officers of the University found time to examine these collections. One of the most helpful results of these exhibitions has been to call attention to the bibliographic collections, and especially to the fact that a competent Bibliographer is now at the service of either officers or students.

At the close of the exhibit from his own collections, Mr. Avery presented nearly half of the titles to this Library. Others exhibiting were sufficiently satisfied and gratified to promise us renewed loans in the future.

The Bibliographer has been very helpful to officers of the University in connection with determining purchases for the Library, either of current books or of those from second-hand dealers. Many of the gaps in our collections have been at least reasonably filled, and we have been able to strengthen quite systematically many weak points heretofore necessarily existing. Our financial limitations have been troublesome, as usual; but we have been able to meet nearly every demand which was imperative.

I still feel that we shall never be quite satisfied until we have established in this Library a strong corps of bibliographers and reference librarians. In earlier reports I have referred to this as exceedingly desirable; it has now become one of our necessities. The larger the library, the more impossible is it for even heads of departments who are supposed to be most interested to know thoroughly and effectively the contents of the library. We ought to have at least one well-equipped man for each of the nine or ten great divisions. Such assistance would vitalize our entire collection, and would exert an influence which would be felt in every department of instruction in the University.

We now have 1467 periodicals on our list, an increase of 34 over the list of last year. Of this number, 96 are deposited in the Science Seminar, 29 in the Biological Department, 20 in the Geological Department, 4 in the Psychological Department, 7 in the Mineralogical Department, 25 in the Botanical Garden, 14 in Teachers College, and 9 in the Historical Reading-Room (for one week only).

The rest of these serials are kept in the Library building. We are increasing our list slowly, since every increase becomes a fixed charge; and always after careful consultation with heads of departments. The collection is full and rich

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and well-selected, but we could add to it very effectively if our resources would permit.

The work of binding has been very satisfactory during the entire year. By careful selection of material and by some changes in style we have accomplished still further saving, especially in binding large sets of periodicals.

After some discouraging experiences because of several changes in the personnel of the department, the work of collecting public documents of every description has at last been brought back to its earlier efficiency, and is now progressing in a very satisfactory way.

This department is also charged with the general oversight of all gifts to the Library, which this year have been generous in number and more valuable than usual. This work has been kept well in hand, and I am glad to be able to report that at the close of the current year there were absolutely no arrearages whatever—nothing in boxes or dark corners or stowed away any where in the building. We have a "rough catalogue" system by which we are able to find any of our unbound material which is really worth preservation.

Shelf Department

The most noticeable changes in this department for the current year are the transfer of the entire collection of educational titles to the library of Teachers College, the establishment of the new reference library at the College of Physicians and Surgeons, and the additional responsibility of general oversight of the shelves of the Ella Weed Library at Barnard College. We have been able to meet this additional work with the present force of the department, but it is doubtful whether this can be continued longer than the present year.

The extra shelving placed in one part of the loft in Room 113, and the removal of the titles on Education, greatly relieved the overcrowded condition which existed as late as the close of the last fiscal year. It is entirely evident, however, that at a very early date the entire shelving in Room 113 must be completed.

The readjustment of the books on the shelves, because of additional shelving and because of the transfer of the titles on Education, involved the handling of at least 250,000 volumes. This work was done quietly and systematically and without any additional help, except the service of one able-bodied man for a very few days. This is only one illustration of a large amount of work of which the University public has no intimation whatever if it is properly performed.

More than usual care has been taken this year to keep the entire contents of the Library in exact order; not only in a

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strictly classified order, but evenly in line on the shelves, and upright, and generally "in good form." This is not only pleasing to the eye, but is a great saving on the wear of the books, and adds much to the facility of handling by readers. To secure this convenience and exactness in the shelving is all the more difficult with us, because our officers and students have such free access to our collections at all times, and are not always careful in their use of the books nor in replacing them.

In spite of the extraordinary increase in the use of the books in the building, we have been able to make rapid returns to the shelves; and very few books have failed to reach a reader because they happened to be in transit. The comparison between this rapid return service and that of some libraries in which books are off the shelves for even a full day after their return by the readers and are consequently reported as not to be found, is extremely satisfying.

The total number of books missing at the close of the fiscal year is 1411, as against 1377 at the close of 1903. The following is a detailed statement:

General Collections.—Reference, 139; Bibliography, 12; Philosophy, 24; Religion, 12; Sociology, 146; Philology, 14; Natural Sciences, 140; Useful Arts, 91; Fine Arts, 21; Literature, 398; History, 127—total, 1124.

Special Collections.—Departments, 203; American Mathematical Society, 2; Avery, 35; Phœnix, 15; Goethe, 9; Mary Queen of Scots, 9; Columbiana, 6; B, X, Y, and Z, 8—total, 287.

Many of the books thus reported as missing will undoubtedly be returned to their places later—since this has been the constant experience of this Library. The total number will be largely reduced by the close of the first month of the coming academic year.

It is not entirely impossible to protect ourselves against these losses; but the restrictions which must necessarily be thrown upon the uses of the Library, and the increased expense in the way of service, far overbalance the possible saving.

We are very glad to be able to report that thus far no serious mutilation has occurred during the year.

This department has charge of Columbiana, including the dissertations presented in partial fulfilment of the requirements of the degree of Doctor of Philosophy. We have distributed these dissertations to 32 universities in the United States, and to 103 foreign universities and other institutions through the Smithsonian Institution at Washington.

During the year we have disposed of a large number of our

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duplicates by sale or exchange; and we have returned some twenty mail-sacks of duplicate public documents to Washington. The condition of the sub-basement, in which duplicates, unclassified matter, etc., are stored, has never been as satisfactory as now. With a slight addition to our rough shelving, we will be able to care for these matters without delay and without permitting any accumulations whatever.

This Library has sent to the Louisiana Purchase Exposition about 400 volumes, including official publications of the University, publications issued by the University Press, Doctors' dissertations, and several collections made up as typical of the general Library.

During the last half of the last month of the fiscal year the contents of the suites of seminar rooms, known as 301 and 306, have been interchanged. This involved handling not less than 150,000 volumes, but again I can report that through the interest and energy of the members of the staff this was accomplished without extra expense. This change places the books which are most in demand nearer the Loan Desk. An opening has been made in the floor of 301, and a rapid-action light lift is being put in place, by which there can be immediate communication between the Loan Desk and these collections which are in such constant demand. There can be no doubt as to the result of this experiment, but a definite report must wait until next year.

Readers' Department

Loan Division.—The total number of volumes supplied directly to readers during the year was 216,852; but the total number of volumes actually handled over the Loan Desk (both in and out) was twice that number, or 433,704, for the total number of days for which the Library was open. This use may be divided into two general classes, inside loans and outside loans. Under the former, 135,532 volumes were supplied for use inside of the building; and under the latter 81,320 volumes went outside of the building. These figures do not include the books taken directly from the shelves in the Reading-Room and in the stack rooms and seminar rooms, and therefore cover only a small part of the real use of the Library in the building.

The character of the circulation for use outside of the building, and the use of the special books on reserve at the Loan Desk, may be determined from the following statement.

On a given day in last December (1903) 3455 volumes were out as loans, as against December (1902) 3648 volumes; classified as follows:

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	General Reference from Reading Room	Bibliography	Philosophy	Religion	Sociology and Education	Philology and Literature, including Fiction	Science and Useful Arts	Fine Arts	History and Biography	Total Volumes Recorded
Loaned for outside use.....	24	42	155	104	1432	619	531	65	483	3455
Reserved at the Loan Desk.....	276	12	127	40	1747	533	51	15	455	3256
Binder.....	10	9	4	3	65	51	50	7	27	226
Total.....	310	63	286	147	3244	1203	632	87	965	6937

Again the records show a slight decrease in the number of volumes loaned outside of the building during the year; which proves the unconscious tendency of all users of the Library to accept under the conditions prevailing at Columbia a reference library as more effective and more satisfactory than a circulating library, though both features must always be retained.

The total number of persons who borrowed books from the Library during the year was as follows:

Officers, 116; Tutors, Assistants, etc., 320.....	436
Graduates: Columbia, 973; Barnard, 182; Teachers College, 67	1222*
Students: Columbia, 1750; Barnard, 242; Teachers College, 279.	2271
Auditors.....	5
	3934

The amount of fines collected for keeping books beyond the time provided by the rules of the Library was $403.10.

The amount collected for lost books was $10.35.

The demand for books to be loaned to other libraries, under the inter-university loan system which has prevailed for many years, has steadily increased. Occasionally—not often—these demands have not been made with the care and with the thoughtful consideration which ought to mark such transactions; and I have been obliged to make careful inquiry into the nature of the demands and to restrict somewhat the loans. I am glad to say that with a single exception the entire reasonableness of this action has been recognized by all interested parties. It is eminently proper that university

* Some of these graduates have re-registered as students, though not counted as such in this table.

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libraries should share with each other the privileges of any exceptional collections, or rare single volumes; but it is manifestly improper that any library should undertake to increase by ill-considered borrowing its collection of current books, or of titles which are to be found in almost every catalogue and the cost of which makes them available to any institution with even moderate resources.

During the year 412 volumes were loaned to 51 libraries, classified by States, as follows:

Connecticut	15	Minnesota	3	Pennsylvania	58
Illinois	13	New Hampshire	4	South Carolina	7
Iowa	1	New York	124	Vermont	6
Massachusetts	38	Nebraska	1	Washington, D.C.	4
Michigan	7	New Jersey	50	Wisconsin	12
Missouri	34	Ohio	35		

This Library borrowed 221 volumes from 14 libraries, classified by States as follows:

Connecticut	54	New Jersey	9
Illinois	7	Pennsylvania	4
Massachusetts	94	Rhode Island	4
New York	25	Washington, D. C.	24

While our relations with all these libraries have been gratifying in the extreme, again special recognition for courtesies extended are due to Mr. W. C. Lane, the Librarian of Harvard University, and Mr. Addison Van Name, the Librarian of Yale University.

The average evening attendance during the year has been 140.

The number of "not found" books has been greatly lessened through the orderly arrangement effected and maintained by the Shelf Department.

A conservative estimate of the number of letters, notices, recalls, etc., shows that not less than 1000 of such communications are sent out each month. This fact not only emphasizes the care and attention which should be given to Library rules by readers and borrowers, but it also shows the constant painstaking of this department to keep our books in use rather than have them lying idle for even a single day in the hands of borrowers.

The number of titles placed on special reference at the request of departmental officers has steadily increased. The day-and-hour scheme under which these are used makes them constantly available to the largest number of readers possible. This scheme was reasonably well under way last year, and

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the report concerning it was entirely favorable; but the work of this year confirms the wisdom of the arrangement and has been very satisfactory indeed. It has sometimes been true that a single volume has been used by ten readers in the course of a single day, each having reasonably satisfied his immediate demands. Such an extensive use as this is absolutely impossible under any other system; but even this use, and in references for which we have five or more copies of the same author, sometimes falls short of entire satisfaction in courses in which there are either large or many divisions. It is not too much to say, however, that this service has been rendered during the current year with practically no friction and no disappointment whatever.

Reference Division.—The use of the Reading-Room has largely increased over preceding years. Frequently would-be readers have failed to find accommodations, and this in spite of the relief afforded by the undergraduate historical seminar and the science seminar. Excellent order has prevailed and but few complaints have been made by readers of any disturbance by others.

There has been an unusually free use of the Library by holders of readers' cards, and these and inquiries by mail have added much to the labors of those employed in this division.

The collection of works on Music, about 600 volumes, has been transferred to the shelves of the Reading-Room in order to be more readily available to the students in the Department of Music, who are not quite as well acquainted with university ways as those who have a somewhat more intimate and somewhat more prolonged experience. Some 50 new volumes of cyclopedias and dictionaries, and nearly 200 volumes selected from the so-called "books of power," have been transferred from the general Library to the Reading-Room or have been purchased, with a view to supplying attractive reading for the leisure hours of the students. The new books, held in the Reading-Room for two weeks before being distributed to their classified positions, have been a constant source of interest and gratification to all readers.

To the supplementary card catalogue of books on Education, cards for 807 volumes and 735 pamphlets have been added; besides entry of 46 volumes and 565 pamphlets as continuations, in a copy of the printed catalogue on Education.

The Head Reference Librarian did a most excellent piece of work for the Library and for the University in the preparation of the Catalogue Raisonnée of the Avery exhibit, held under the direction of the Bibliographer of the Library.

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It will be gratifying to all who appreciate the value of their thoughtful generosity, to know that the interest of Mr. and Mrs. Avery has been even greater than usual. The library is still under constant obligation to Mr. Russell Sturgis for his advice and assistance in the selection of books. The additions made during the year have been peculiarly satisfactory. Most immediately helpful in the special work of the library was the generous donation of $1000 early in the year. This nearly doubled the working income of the library and made it possible to buy quite freely whatever was needed. In a certain sense, however, this money, like the regular income of the Avery Library, has been spent for less important titles: since Mr. and Mrs. Avery have continued to meet by special or direct contributions the demands for any unusually large and expensive works.

Avery Library

The custodian of this library was enabled to devote four months to an extended European tour during the summer of 1903. The results of this carefully planned journey, and of the intelligent use of the opportunities thus afforded, have been very manifest in the increased efficiency of library administration during the year. Mr. Smith very generously placed in the library a large collection of maps and local guides which he secured during his absence. His visits to the libraries of England and France have brought us many valuable gifts and exchanges.

In the past the Avery Library has been considered as being in a certain sense the departmental library for the work in Architecture. While this is true, and while the Department of Architecture is exceedingly favored by having this remarkable collection within easy reach, the fact that the books in the Avery Library are not for circulation should be kept constantly in mind by the University authorities; and at the earliest possible moment appropriations should be made for a reasonable collection of titles which may be drawn from the library by students in Architecture. In spite of the long hours of each day during which Columbia Library is open in all its departments, there is still room in the life of every student for the book which is peculiarly valuable because it has been on his table and at his elbow and in a certain sense his own.

By common consent of all interested, it was thought best to establish at the College of Physicians and Surgeons, at the opening of the academic year, a reference library for the use of the students of that institution. The officers have their own

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private collections, and have free use of the remarkable library of the New York Academy of Medicine. This has been opened to the students also, but it is somewhat remote from the College, and it was felt that there was room for a library for the daily use of the students; a library which perhaps will never exceed say 2000 volumes. Under advices from a peculiarly effective and helpful special committee of officers of the College, some 600 books were purchased, carefully classified and catalogued, and placed in the room on the first floor formerly known as the Reception Room. An opening was made between this and the large room which had been used for some years as a reading room or study room, and comfortable accommodations were provided for something over 100 readers.

Medical Reference Library

The experiment was a success from the first day. The students have shown their appreciation by their orderly and intelligent use of these new privileges. Not a single book has been damaged nor is there a loss of any kind to report during the year. The attendance steadily increased, and during the last half of the year averaged 120 each day. The evening attendance has been small, rarely exceeding 10—but we feel inclined to continue the evening work as an experiment which promises success. The library has been open five days in the week from half-past eight until half-past five, and from seven until ten in the evening. On Saturdays, in common with all departments of the College, the library has closed at three.

In closing this report I desire to renew my acknowledgments of the continued courtesy shown to the Library staff by all officers of the University; to again express my appreciation of the loyalty, faithfulness, and efficiency of the Supervisors of the various divisions of Library work, and of all their subordinates; and to record the continual indebtedness of the Library to Mr. John B. Pine, whose untiring and unselfish devotion to all our interests is most helpful and most inspiring.

Respectfully,

JAMES H. CANFIELD,
Librarian.

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TOTAL DAILY VOLUMES OUTGOING

	Days Open, 1903–04	Days Open, 1902–03	Largest, 1903–04	Largest, 1902–03	Smallest, 1903–04	Smallest, 1902–03	Readers' Tickets, 1903–04	Readers' Tickets, 1902–03
July.....	26	26	835	719	215	170	17	17
Aug.....	26	26	665	568	119	146	9	11
Sept.....	26	26	877	477	110	42	24	22
Oct.....	27	27	921	1100	641	287	40	28
Nov.....	24	24	1059	1284	237	917	17	19
Dec.....	26	26	1023	1089	414	335	36	18
Jan.....	25	26	1145	1147	500	639	13	19
Feb.....	25	24	1114	1221	731	778	25	20
March.....	27	26	1128	1297	865	956	26	23
April.....	25	25	1058	1220	720	860	10	24
May.....	26	26	965	1198	137	143	2	12
June.....	26	26	455	440	149	106	10	6
Total...	309	308	—	—	—	—	229	219

Readers' tickets renewed.....	1903–04	42
	1902–03	44
Seminar and shelf permits.....	1903–04	308
	1902–03	238

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USE OF THE LIBRARY

	Supplied for Use Outside of the Building						Supplied for Use Inside the Building						Total Volumes Outgoing at the Loan Desk				Fines Collected	
	Loans, 1903–04	Loans, 1902–03	Renewals, 1903–04	Renewals, 1902–03	Total Loans, 1903–04	Total Loans, 1902–03	General Use, 1903–04	Special, 1903–04	Total, 1903–04	General Use, 1902–03	Special, 1902–03	Total, 1902–03	Total Outgoing, 1903–04	Total Outgoing, 1902–03	Daily Average, 1903–04	Daily Average, 1902–03	Fines Collected, 1903–04	Fines Collected, 1902–03
July	3,408	4,257	659	760	4,067	5,017	4,588	6,524	11,112	4,505	3,256	7,761	15,179	12,778	583.9	491.4	$ 11.85	$ 11.30
Aug.	2,248	2,974	645	740	2,893	3,714	2,881	4,076	6,957	3,121	1,474	4,595	9,850	8,309	378.8	319.5	8.60	12.45
Sept.	3,432	2,842	571	681	4,003	3,523	3,773	1,190	4,963	2,515	146	2,661	8,966	6,184	344.3	237.8	13.95	8.70
Oct.	7,866	7,723	1,079	1,156	8,945	8,879	7,397	4,587	11,984	9,034	4,688	13,722	20,929	22,601	775.1	837.	30.65	26.45
Nov.	7,307	8,035	1,096	1,010	8,403	9,045	7,481	4,144	11,625	9,645	5,224	14,869	20,028	23,914	834.5	996.4	43.40	34.35
Dec.	6,173	6,710	1,273	1,151	7,446	7,861	7,804	4,462	12,266	8,251	3,937	12,188	19,712	20,049	758.1	771.1	39.30	42.35
Jan.	7,143	7,572	1,138	1,502	8,281	9,074	7,976	6,238	14,214	9,072	5,002	14,074	22,495	23,148	899.8	890.3	52.35	37.25
Feb.	6,732	8,956	1,432	1,255	8,164	10,211	9,722	6,380	16,102	9,169	5,397	14,566	24,266	24,777	970.6	1032.3	37.45	32.80
Mar.	8,466	10,313	1,484	1,343	9,950	11,656	10,180	6,587	16,767	10,596	6,552	17,148	26,717	28,804	989.5	1107.8	41.35	41.45
Apr.	7,601	10,243	1,263	947	8,864	11,190	8,862	5,891	14,753	9,609	5,873	15,482	23,617	26,672	944.6	1066.8	44.65	55.90
May	5,325	6,880	1,186	1,049	6,511	7,929	5,576	5,543	11,119	6,935	6,114	13,049	17,630	20,978	678.1	806.8	52.85	46.50
June	2,919	3,396	874	710	3,793	4,106	3,123	547	3,670	3,542	417	3,959	7,463	8,065	287.0	310.2	26.70	31.70
Total	68,620[1]	79,901	12,700	12,304	81,320	92,205	79,363	56,169	135,532	85,994	48,080	134,074	216,852[1]	226,279	701.8	734.6	$403.10[2]	$381.20[3]

[1] This does not include 2012 volumes loaned from Science Seminar.

[2] Of this amount $8.10 was collected through the Science Seminar, 1903–04.

[3] Of this amount, $8.45 was collected through the Science Seminar, 1902–03.

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RECORD OF GIFTS

1903–04

	Vols.	Pam.
Abbe, Mrs. Robert		10
Adler, Dr. Felix	2	
Alexander, E. P.		1
Allen, William F.	1	
Ames, Wilberforce	1	
Anderson, A. A.	1	
Anderson, H. C. L.	1	1
Andrews, ——	2	2
Austin, Peter T.		3
Avery, Samuel P.	38	40
Baker, Frank C.	2	2
Baker, G. H.	230	26
Baker, H. M.		1
Balch, Edwin S.	1	
Bancroft & Whiting Co.	2	
Bardeen, C. W.	1	
Barnard, James M.	1	
Batchellor, A. S.		1
Beebe, W. H. H.	2	22
Beebe, Mrs. W. H. H.	9	15
Benjamin, Dr. Marcus		1
Bernath, M. H.	16	11
Berry Bros.	1	
Blake, J. A.		3
Bolles, M. N.	2	
Bolton, Mrs. S. K.	1	
Bonilla, Adolfo		1
Bookman, S.	7	
Borah, W. E.		1
Boskowitz, G. W.		1
Breitkoff & Hartel.		1
Brewer, Dr. G. E.	1	
Brigham, C. S.		2
Brockhaus, F. A.	2	
Brower, J. V.	1	
Brower, W. L.		1
Brown, Allen H.	1	
Brown, John Crosby	1	
Buck, Dr. Albert H.	1	
Bulkley, Dr. L. D.	1	
Burnz & Co.	6	6
Burpee, Lawrence J.		1
Bushnell, D. I., Jr.	1	
Butler, Pres. N. M.	245	1656
Butterfield, A. D.		1
Butterfield, Mrs. Daniel	1	
Byrnes, Esther F.		1
Canfield, Dr. J. H.	4	2
Cantor, Jacob A.	1	
Carpenter, Prof. G. R.	6	169
Carpenter, Prof. W. H.	4	71
Carter, H. W.	1	
Cary, Clarence	1	
Cattell, Prof. J. McK.	1134	1078
Chadwick, Capt. F. E.		1
Chandler, Dr. C. F.	2	2
Chickering & Sons	1	
Church, John A.	10	
Clark, Ulysses	2	18
Clews & Co., Henry		1
Cohen, W.	1	
Cole, George W.	3	337
Colloque, Mrs. Frances		1
Comings, S. H.		1
Conant, William C.	1	
Constant, Baron d'Estournelles de		1
Cook, Thomas, & Son	1	
Cottrell & Sons Co., C. B.	1	
Cowles, George B.		1
Crisp, F. A.	1	
Crocker-Wheeler Co.		1
Curtis, Atherton		6
Cust, Robert Needham	1	
Davey, Vernon L.		1
Davidson, George	1	
Davidson, Israel		1
Davis, Miss E. M.		47
Davis, Walter A.	1	
Day, Prof. W. S.	2	12
De Peyster, Gen. Watts	4	
Dodge, Prof. Raymond		1
Dougherty, J. T.		1
Dreyfus, W. E.	1	
Dudley, Col. Edgar S.		1
Dunning, Prof. W. A.	10	82
Düring, Charles A.	11	
Du Vivier, C. L.	1	
Dwinell-Wright Co.		1
Dyer, Katherine J.	9	8
Edison Co.		1
Einhorn, Dr. Max		5
Ellis, W. A.		2
Erb, Frank C.		1
Ewing, Thomas, Jr.		1
Farrand, Prof. L.		2
Fleming, Walter L.		1
Fletcher, Miss E. A.	1	
Folger, H. C.	1	
Fremery, Herman de	12	1
Fuchs, Dr. Frederick	2	
Funk & Wagnalls Co.	1	
Gardner & Cox	1	
Giddings, Prof. F. H.		252
Gies, William J.	3	
Gilbert, G. K.		1
Gilpin, Edward		2
Goodnow, Prof. F. J.	20	102
Goodyear, W. H.		2
Gottheil, Dr. R. J. H.	2	9
Gray, Henry	2	
Green, Samuel A.	2	39
Green, Samuel S.		2
Hackett, Frank S.	1	
Haldane, W. H.	7	
Hamaguchi, K.		14
Hamlin, Prof. A. D. F.	1	
Harper Bros.	1	
Harper, Pres. W. R.	1	
Harper, W. W.	1	
Hawley, E. C.	1	
Hays, Harold M.		2
Heller, Hermann V.	1	
Henshaw, Mrs. J. C.	1	
Hepburn, A. P.	2	
Hicks, Clarence J.		1
Hirth, Friedrich		3
Hoguet, Robert	5	19
Holbrook, Dr. R. D.	6	11
Holden, Edwin B.	3	
Holden, Dr. E. S.		2
Hooker, W. B.	1	
Howe, Prof. H. M.	2	
Hozumi, Nobushige	1	

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	Vols.	Pam.
Hrdlička, Aleš		6
Huber, John B.	1	
Huberich, C. H.		3
Hughes, Jas. L.	2	
Hühner, Leon		1
Hunt Co., C. W.		1
Hunt, Barnard & Co.		1
Hunt, Carleton		1
Iles, George	1	
Jackson, Prof. A. V. W.	1	4
Jacoby, Prof. H.	43	
Johnson, A. S.	4	
Joüet, Dr. C. H.	6	
Kahler, Dr. P. & Sons	1	
Kalbfleisch, L. C.	7	46
Kaye, B. M.	3	
Kellen, W. V.	1	
Kelloqq, G. S.	9	15
Keppel, F. P.	1	
Keppler, E. A. C.	1	
King, H. C.		2
Kohut, G. A.		2
Kunz, G. F.	2	3
Latorre, Prof. A. C.		2
Laughlin, Prof. T. C.		1
Laws, Dr. S. S.		2
Lawton, W. C.	1	
Lawyers Co-operative Pub. Co.	1	
Learned, M. D.		4
Leland, Arthur		1
Lenehan, J. J.	7	
Leonard, Miss M. H.		1
Lesouef, August		1
Letchworth, W. P.	1	
Levy, Miss Florence		25
Lewis, Miss S.	2	
Lewisohn, Adolph	5	
Linville, Dr. Henry		1
Lloyd, Mrs. Henry D.	1	3
Lord & Burnham Co.		4
Lord & Thomas		1
Loubat, Duke of	2	
Loveman, Robert	2	
Low, Hon. Seth	5	316
McClelland, J. F.	41	
McIlhiney, P. C.	9	71
MacLehose, James, & Sons		1
Macmillan & Co.		10
Macmullen, Miss Grace		28
McMurtrie, W.	6	6
McNeill, C. R.	1	
Macy, V. Everit		201
Marden, O. S.	2	
Martin, Prof. C. A.		1
Marvin, Rev. Dr. F. R.	1	
Mason, W. T.	1	
Maxwell, Lawrence		1
Merck & Co.		1
Mettz, H. L.	72	
Metzenbaum, Dr. Myron		1
Miller, Prof. E. H.	1	
Miller, Miss L. K.		7
Moore, C. B.	9	6
Morse, R. C.		1
Morton, J. F.		1
Moses, M. J.	1	
Nash, John McL.	3	
Nelson, C. A.	31	93
Nelson, Ernesto	36	249
Neustadt, G. M. S.	1	
New York Edison Co.		1
North, S. N. D.	1	
Ogilvie, J. S. Pub. Co.	1	
O'Halloran, George F.		1
Olmstead, Mrs. S. H.	2	
Olschki, Leo S.		2
Osgood, Prof. H. L.	2	
Outerbridge, A. E.		2
Palmer, Prof. G. H.	1	
Párekh, Derchaud	1	
Parsons, Mrs. Herbert	1	
Parsons, W. C.		1
Pegram, R. B.	2	
Perna, Dr. Luis		1
Pernin, H. M. Pub. Co.		1
Peterson, H. A.		1
Pine, John B.	19	36
Planten, J. R.		18
Platt, T. C.	1	
Pott, Rev. F. L. H.	2	
Prentis, Mrs. Noble	1	
Prime, Miss Cornelia	2	
Prince, J. D.		2
Prudden, Dr. T. M.	1	
Rand, Prof. Benjamin		1
Randolph, Prof. Louise	1	
Richards, L. S.	1	
Richardson, L. J.		1
Rivero, Dr. Manuel		2
Rogers, Mrs. Fairman	1	
Rosengarten, J. G.		6
Rosewater, Victor		1
Rotzell, E. W.		2
Rush, J. A.		1
Sanial, M. L.	1	
Saville, Prof. M. H.	1	6
Seager, Prof. H. R.	1	
Seely, Mr. Walter	37	10
Seligman, Prof. E. R. A.	106	666
Sellers, E. J.	1	
Sever, Prof. G. F.	2	
Sheppard, H. N.	1	
Simkhovitch, V. G.	1	
Simmons, W. C.	1	
Simonson, Dr. G.	1	
Slosson, E. E.		1
Smith, Miss A. D.	9	40
Smith, Prof. C. S.	1	
Smith, E. R.	13	69
Smith, H. F.	1	
Snow, F. H.		1
Soper, George A.		1
Sparks, Prof. E. E.		1
Spencer, C. H.		1
Spingarn, J. E.		7
Sprague, H. B.		2
Starr, M. A.	1	
Stechert, G. E.	1	
Stein, F. J.	1	
Stephens, C. A.	1	
Sterne, Mrs. M. S.	1	
Stires, Rev. E. M.		1
Strong, Prof. A. C.	2	
Struthers, Joseph		3
Sturgis, Russell	1	4
Sullivan & Cromwell		3
Sutro, Mrs. Theodore		2
Takahira, Kogoro		20
Taylor, Dr. H. O.	32	
Thomas, Prof. C.	1	
Thompson, J. C.	3	
Thynne, Charles J.		1
Tiepke, H. E.	1	
Tiffany & Co.	1	
Tilton, E. L.	1	

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	Vols.	Pam.		Vols.	Pam.
Tingley, F. P.	1		Warren, C. E.	1	
Tolman, Prof. H. C.	2		Welsh, Herbert		9
Tombo, Dr. Rudolf		103	West, Mrs. Max	56	850
Townsend, T. S.	56	7	Whitmore, W. G.		1
Tracy, Mrs. Charles	1		Whittaker, Thomas	1	
Treat, E. B.	1		Wiard, Oliver M.		3
Twombly, John F.		9	Wilcox, E. M.		1
Unknown Giver	5	15	Williams, David, Co.		1
Van Amringe, A. J.	1		Woodbridge, Prof. F. J. E.		1
Veeder, M. A.		1	Woodward, Prof. B. D.		26
Wadlin, Horace G.	1		Woodward, Prof. R. S.		1
Waldeyer, W.		1	Woolson, I. H.	35	8
Warbasse, Dr. J. P.		4	Yerkes, Charles T.	1	
Ward, Mrs. M. L.		2			
Ware, Prof. W. R.	4	786		2634	8006
Warner, J. De Witt		2			

United States, State, and city reports; reports of educational, charitable, and penal institutions, and other similar sources—1364 volumes and 119,156 pamphlets.

Number of exchanges from 290 universities, libraries, and scientific societies—3628 volumes and 4323 pamphlets.

MISCELLANEOUS GIFTS

Benjamin, Dr. Marcus..... 1 certificate of scholarship.
Butler, Pres. Nicholas Murray..... Photographs, engravings, newspaper clippings, etc., for Columbiana.
Canada Geological Survey..... 2 maps.
Canada Interior Department..... 1 map.
Farrand, Prof. L..... 10 plates.
Farrar, G. C..... 1 autograph letter.
Garner, J. W..... 1 atlas.
Hamm, W. C..... Large box of valuable paper clippings on economic and political subjects.
Hoguet, Robert..... 6 maps.
Huling, A. S..... 6 packages of newspaper clippings on anarchistic subjects.
Kalbfleisch, C. C..... 1 map.
McIntosh, Miss Jennie..... 3 Columbia College commencement cards.
New York City Department of Bridges... 8 plans, drawings, etc.
New York State University..... 1 map.
Pennsylvania Railroad Company 7 volumes of specifications and contract drawings.
Russia—Minister of Ways of Communication..... 1 volume of charts.
United States Geological Survey..... 8 atlases, 60 topographical maps, 7 maps.
United States Superintendent of Documents..... 1 map.
United States—Library of Congress..... 6 maps.
Victoria (Australia) Department of Mines. Maps.
Warburg, Felix M..... 218 valuable documents relating to the German Revolution of 1848.
Wheelock, Dr. Geo..... 6 volumes of medalic casts.

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REPORT OF THE TREASURER

TO THE

TRUSTEES OF COLUMBIA COLLEGE IN THE CITY OF NEW YORK

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To the Trustees of Columbia College
in the City of New York,

The Treasurer makes the following report of the financial affairs of the Corporation for the year ending June 30th, 1904.

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RECEIPTS AND PAYMENTS.—Schedule 1

RECEIPTS.

Cash Balance, June 30, 1903	$298,365 39
General Income of the Corporation—Schedule 3, page 266	939,687 74
Gifts, Legacies and other Receipts for Designated Purposes—Schedule 4, page 267	1,441,321 04
Income of Special Funds—Schedule 5, 3d column, page 272	107,662 69
Miscellaneous—Schedule 6, page 274	3,332,191 24
Interest—Schedule 10, page 288	14,122 52
Special Real Estate Income and Expense Account—Schedule 11, 4th column, page 290	144,228 32
	$6,277,578 94

PAYMENTS.

Current Expenses—Summary of Schedule 7, page 284	$1,067,715 98
Miscellaneous—Schedule 8, page 285	3,746,718 31
Interest—Schedule 10, page 289	201,267 86
Expenses of Special Real Estate as shown in Schedule 11, 1st column, page 290	131,633 48
Cash Balance, June 30, 1904—Balance Sheet, Schedule 2, page 264	1,130,243 31
	$6,277,578 94

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BALANCE SHEET, JUNE 30, 1904.—Schedule 2

Dr.

Cash Accounts:			
General Funds:			
New York Life Insurance & Trust Co		$877,545 48	
Bank of New York, N. B. A		62,318 04	
Corn Exchange Bank—University Branch:			
Treasurer's Account	$6,378 99		
President's Account	32,995 00		
Bursar's Account	3,335 24	42,709 23	
Hudson River Bank		575 60	
Bursar		50 00	
Superintendent		50 00	
Secretary		30 00	
Librarian		50 00	$983,328 35
Special Funds:			
New York Security & Trust Co			128,869 75
Funds for Designated Purposes:			
Catherine Wolfe Bruce Fund (Mercantile Trust Co.)		$10,191 82	
Loubat Fund Income (N. Y. Life Insurance & Trust Co.)		2,779 89	
Students' Loan Fund (N. Y. Security & Trust Co.)		5,073 50	18,045 21
			$1,130,243 31
Rents due and unpaid—Schedule 16, page 304			9,461 50
Due on contracts for sale of 47th and 48th Street Block			227,750 00
Investment of Special and General Funds in Personal Securities—Schedule 15, page 301			3,283,884 64
Income of Special Funds—Overdrafts—Schedule 5, 6th column, page 272			2,037 04
University—Lands, Buildings and Equipment—Morningside			9,141,775 69
College of Physicians and Surgeons—Additions and Alterations to June 30, 1900			511,541 70
Williamsbridge Property, Williamsbridge, New York			159,266 40
No. 18 East 16th Street, New York			163,960 04
Gaillard-Loubat Library Endowment Fund—503-11 Broadway, New York			629,769 86
Civil Engineering Summer School, Morris, Conn			14,412 17
Loans from Students' Loan Fund on Students' Notes			1,979 00
Summer Session, 1904			1,827 22
Buildings and Grounds: Planting, 1904-5			314 77
Civil Engineering: Summer Course, 1904-5			2,200 00
Exhibit at St. Louis, 1904-5			885 00
			$15,281,308 34

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Principal of Special Funds—Schedule 14, page 293		$3,339,734 67
Income of Special Funds: Credit Balances June 30, 1904—Schedule 5, 7th column, page 272		28,983 42
Funds for Designated Purposes: Credit Balances June 30, 1904—Schedule 9, 5th column, page 287		59,770 75
Endowment Account		1,975,446 56
Gifts and Legacies for the purchase of land and erection of buildings		3,464,576 46
Students' Loan Fund		7,052 50
Advance payment of Fees, 1904-5		3,764 00
Barnard Medal		200 00
Deposits for Apparatus		584 48
Deposits for Keys		789 05
Interest Fund, 1904-5		1,000 00
Interest Fund, 1905-6		1,000 00
Interest Fund, 1906-7		1,000 00
Interest Fund, 1907-8		1,000 00
Premium Account		137 00
Summer Session, Surplus, 1900-1903		16,562 44
Title Guarantee & Trust Co		8,654 94
Bloomingdale Site Mortgage	$1,000,000 00	
Columbia College 3 per cent. Mortgage Bonds, due 1909	1,900,000 00	
Columbia College Notes	500,000 00	
South Field Mortgages	1,500,000 00	4,900,000 00
Loubat Annuity Mortgage, 503-11 Broadway, New York		448,000 00
Williamsbridge Property Mortgage		48,000 00
Personal Estate		975,052 07
		$15,281,308 34

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Schedule 3

GENERAL INCOME OF THE CORPORATION

RENTS:			
Upper Estate	$284,697 54		
Lower Estate	110,428 00		
		$395,125 54	
Arrears		2,386 00	
Interest on Rents		146 46	
			$397,658 00
FEES, 1903-4:			
Morningside:			
Late Application for Entrance Examinations	160 00		
Late Registration	1,835 00		
Matriculation	3,460 00		
Tuition	299,927 29		
Graduation	13,255 00		
Special Examination	835 00		
Auditors'	725 00		
Gymnasium	12,470 50		
		332,667 79	
Students at Columbia College:			
From Barnard College	1,920 00		
From Teachers College	2,015 00		
		3,935 00	
College of Physicians and Surgeons:			
Late Registration	180 00		
Matriculation	575 00		
Tuition	125,030 00		
Graduation	4,475 00		
Special Examination	270 00	131,430 00	
			468,032 79
SUNDRIES:			
Other Receipts from Students:			
Supplies and Material:			
Schools of Applied Science	10,680 20		
College of Physicians and Surgeons	3,002 57		
Sales of Books and Library Fines	504 05		
		14,186 82	
Barnard College:			
Salaries	59,450 00		
Steam Heat and Power	3,500 00		
Electric Current	677 05		
		63,627 05	
Miscellaneous:			
Sales of University Catalogue	115 00		
West Hall Account	360 00	475 00	78,288 87
Total General Income for 1903-4		(1)	$943,979 66
Less Payments for 1903-4 received in 1902-3:			
Rents		5 00	
Fees		4,286 92	4,291 92
General Income Received in 1903-4		(2)	$939,687 74

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Schedule 4

GIFTS, LEGACIES AND OTHER RECEIPTS FOR DESIGNATED PURPOSES

I. ADDITIONS TO SPECIAL FUNDS:			
Ellen Josephine Banker, Estate of, to establish, in memory of her brother, the Cornelius Heeney Gottsberger Scholarship Fund.....	$10,000 00		
Less transfer tax.....	500 00	$9,500 00	
Mrs. Richard Butler, to establish, in memory of her husband, the Richard Butler Scholarship Fund.....		5,000 00	
H.W. Carpentier, to establish, in memory of Reuben S. Carpentier, the Carpentier Professorship of Pediatrics Fund.....		60,000 00	
Edward A. Darling, Estate of, to establish the Edward A. Darling Prize Fund for Engineering.....		1,000 00	
Joseph Pulitzer, to establish and endow a School of Journalism.....		1,000,000 00	
William D. Sloane and Emily Thorne Sloane, as an addition to the Sloane Maternity Hospital Fund.....		225,000 00	
Sarah M. Toppan, to establish in memory of her husband, the Robert Noxon Toppan Prize Fund.....		4,000 00	$1,304,500 00
II. FUNDS FOR ADDITIONS TO REAL ESTATE:			
Hartley Hall, Construction: Marcellus Hartley Dodge and Mrs. Helen Hartley Jenkins.....		5,912 50	
School of Mines Building, Construction: Adolph Lewisohn.....		2,700 00	
South Field Purchase Fund:			
Adlington, J. A.....	50 00		
An old New Yorker.....	1,000 00		
Baldwin, Florence T.....	5 00		
Baldwin, Jared G., Jr.....	50 00		
Barnes, George H.....	10 00		
Beller, Wilhelmina C.....	25 00		
Binney, William J.....	100 00		
Bird, Dr. J. T. Joseph.....	25 00		
Bouvier, John V., Jr.....	15 00		
Briggs, Yoeman.....	1 00		
Brummer, Sidney D.....	10 00		
Canfield, Robert B.....	100 00		
Caponigri, Joseph F.....	10 00		
Cardozo, Michael H., Jr.....	25 00		
Case, Henry Phelps.....	100 00		
Chalmers, Rev. James V.....	15 00		
Chew, Rev. John Marshall.....	10 00		
Carried forward.....	$1,551 00	$8,612 50	$1,304,500 00

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Brought forward.....	$1,551 00	$8,612 50	$1,304,500 00
Colloque, Orrok.....	5 00		
Columbia University Alumni Association of Colorado.....	135 00		
Colwell, Lino M.....	5 00		
Cowles, Justus A. B.....	25 00		
Crowell, John Whiting.....	5 00		
Dennis, John B.....	250 00		
Douglas, Archibald.....	10 00		
Emmet, Devereux.....	25 00		
Ernst, Arthur Ogden.....	3 00		
Falk, M. J.....	10 00		
Fall, Frank A.....	5 00		
Fisher, William R.....	25 00		
Fowler, A. A.....	25 00		
Frost, H. H., Jr.....	50 00		
Gallaudet, Bert B.....	25 00		
Gillies, Edwin J.....	250 00		
Gore, John K.....	50 00		
Gudeman, Alfred.....	10 00		
Hackett, Frank S.....	20 00		
Hallett, Walter E.....	10 00		
Hand, O. K.....	50 00		
Hayes, Euphemia J.....	5 00		
Hazen, William L.....	100 00		
Heimann, Walter J.....	5 00		
Herriman, W. H.....	500 00		
Heydecker, E. L.....	10 00		
Hoole, Lester Page, M.D.....	1 00		
Hooper, George H., Jr.....	10 00		
Hyde, Albert F.....	100 00		
Insley, Robert B.....	1 00		
Jones, Walter R. T.....	100 00		
Judson, A. B., M.D.....	1 00		
Keppel, F. P.....	25 00		
King, Willard V.....	100 00		
Krauss, F. I.....	5 00		
Laimbeer, Francis E.....	25 00		
Laimbeer, John, Jr.....	25 00		
Lemcke, E. G.....	20 00		
Lesher, A. L.....	100 00		
Levey, Edgar J.....	25 00		
MacVannel, John Angus.....	100 00		
Member of Class of '75.....	500 00		
Mendelson, Walter, M.D.....	5 00		
Meyer, Alfred, M.D.....	100 00		
Miehling, Edward.....	10 00		
Mitchell, Cornelius B.....	150 00		
Mitchell, William.....	1,100 00		
Morrill, William C.....	25 00		
Morris, Henry Lewis.....	50 00		
Muirheid, J.....	25 00		
Nathan, Edgar J.....	250 00		
Parker, Herschel C.....	50 00		
Parsons, Henry.....	100 00		
Peabody, George Foster.....	5,000 00		
Perry, C. Langdon.....	25 00		
Pierrepont, Anna J.....	25 00		
Carried forward.....	$11,217 00	$8,612 50	$1,304,500 00

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Brought forward	$11,217 00	$8,612 50	$1,304,500 00
Pierrepont, H. E.	500 00		
Pierrepont, Julia L.	25 00		
Pierrepont, R. Stuyvesant	500 00		
Pott, Rev. F. L. Hawks	25 00		
Pupin, M. I.	1,000 00		
Pupke, Eberhard L.	25 00		
Purdon, John	10 00		
Raiman, Robert Insall	5 00		
Ray, David H.	20 00		
Ray, L. D	250 00		
Ray, Thomas H.	10 00		
Reed, Albert A.	10 00		
Reeder, Rudolph R.	50 00		
Richards, Howard, Jr.	25 00		
Ruhe, Arthur S.	10 00		
Rydberg, P. A.	25 00		
Satterlee, Herbert L.	100 00		
Schmelzel, James H.	25 00		
Schmitt, Rev. E. B.	10 00		
Seligman, Alfred L.	100 00		
Seligman, Isaac N.	10,000 00		
Scholey, Rev. Charles Herbert	5 00		
Sill, Rev. Thomas Henry	25 00		
Speyer, James	25,000 00		
Spitzka, E. A.	10 00		
Stewart, D. A.	10 00		
Tucker, Louise E.	10 00		
Villard, Mrs. Henry	5,000 00		
Weed, Richmond	10 00		
West, John C.	25 00		
White, Thomas R., Jr.	50 00		
Whitmore, Albion S., M.D.	25 00		
Wight, Joseph Center	10 00		
Wise, Henry M.	10 00		
Wolbarst, A. L.	5 00		
Wood, Dennistoun, Jr.	5 00		
Yen, Chin Yung	5 00	54,147 00	62,759 50
III. INTEREST FUND, 1902-3:			
Seth Low			5,000 00
IV. FOR OTHER DESIGNATED PURPOSES:			
Alumni Association, College of Physicians and Surgeons, for Alumni Association Fellowships		1,500 00	
American School for Oriental Study and Research in Palestine:			
Anonymous, through Prof. R. J. H. Gottheil	25 00		
Department of Oriental Languages	25 00		
Adeline Prince	50 00		
O. S. Straus	50 00	150 00	
Anonymous, for current needs, subject to the direction of the President, and apportioned as follows:			
Architecture, Departmental use	125 00		
Journal of Zoölogy	5,000 00		
Library Building, Repairs to roof	1,000 00		
Carried forward	$6,125 00	$1,650 00	$1,372,259 50

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Brought forward.....	$6,125 00	$1,650 00	$1,372,259 50
Library, Additional Equipment and other special needs.....	5,000 00		
Library, Special Equipment at the College of Physicians and Surgeons.....	600 00		
Surgery, Research Laboratory.....	100 00		
Unapportioned	8,175 00	20,000 00	
Anonymous, for the Salary of a Professor of Philosophy for four years		20,000 00	
Anonymous, to enable Students to visit the St. Louis Exposition.....		5,000 00	
Dr. Charles P. Bowditch:			
For Salaries in Anthropology, 1904-5		100 00	
Buildings and Grounds, for Trees and Shrubs:			
B. Aymar Sands.....	100 00		
F. Augustus Schermerhorn.....	100 00	200 00	
Catherine Wolfe Bruce Fund:			
Rutherfurd Stuyvesant.....	1,000 00		
Interest.....	334 92	1,334 92	
Augustus W. Colwell:			
For Special Fund for Equipment, Mechanical Engineering.....		100 00	
Edward A. Darling, Estate of:			
To provide a drinking fountain in Library Building		1,000 00	
Marcellus Hartley Dodge:			
For Department of Botany.....		10 00	
French Lecture Fund:			
Through Prof. Adolphe Cohn.....		237 25	
Geology:			
Anonymous, through Prof. J. F. Kemp, for departmental use...		200 00	
German Lecture Fund:			
Baruch, Dr. Emanuel.....	10 00		
Behrens, A. & Co.....	50 00		
Bittel, Tepel & Co.....	50 00		
Caille, Dr. August.....	25 00		
Cillis, H.....	25 00		
Cohn, Dr. Louis.....	25 00		
Edelhoff, C. A.....	25 00		
Honegger, Dr. Oscar P.....	50 00		
Jacobi, Dr. Abraham.....	50 00		
Keuffel, M.....	50 00		
Kramer, Max.....	70 00		
Kudlich, H. C.....	25 00		
Lichtenstein	50 00		
Menke, John & Co.....	20 00		
Meyer, J.....	50 00		
Meyer, Dr. Willy.....	50 00		
Mutz, G. K.....	50 00		
Ramsperger, H. G. & Co.....	50 00		
Ridder, Herman.....	50 00		
Ringler, F. A.....	50 00		
Robertson, J.....	50 00		
Uhl, Mrs. E.....	100 00		
Carried forward.....	$975 00	$49,832 17	$1,372,259 50

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Brought forward.....	$975 00	$49,832 17	$1,372,259 50
Weber, Leonard	25 00		
Wolf, I. S.....	25 00	1,025 00	
Rt. Rev. David H. Greer, D.D.:			
For Salaries in Oriental Languages		600 00	
Prof. A.V.W. Jackson:			
For use of Department of Indo-Iranian Languages.....		1 40	
Benjamin B. Lawrence:			
For Lawrence Annual Scholarship.		200 00	
Library:			
Anonymous, for Special Fund for Purchase of Books.....	10,000 00		
Anonymous, through Prof. Felix Adler, for Special Fund for Purchase of Books.....	125 00		
James Loeb, for James Loeb Fund.	150 00		
William G. Low, for William G. Low Fund.....	250 00	10,525 00	
James Loeb:			
For Salaries in Anthropology, 1904-5.....		50 00	
George McAneny:			
For Salaries in Anthropology.....		500 00	
Mining, Special Equipment Fund:			
Black, A. L.....	25 00		
Campbell, Alexander J.....	75 00		
Channing, J. Parke.....	50 00		
Davidson, W. E.....	50 00		
de la Fuente, J.....	100 00		
Gillette, H. P.....	25 00		
Hitchcock, C. K., Jr.....	25 00		
Kelly, William.....	10 00		
Krumb, Henry.....	50 00		
Norris, R. V.....	30 00		
Pattberg, O. F.....	50 00		
Perry, O. B.....	100 00		
Pomeroy, W. A.....	101 95		
Robeson, A. M.....	10 00		
Titcomb, H. A.....	50 00		
Tudor, William.....	50 16		
Tuttle, E. G.....	50 00	852 11	
Mining and Metallurgy, Special Fund:			
C. K. Hitchcock, Jr.....	25 00		
Interest	65 86	90 86	
Music:			
Anonymous, for Incidental Expenses.....		600 00	
Oriental Languages:			
Anonymous, for Salaries.....		1,000 00	
Julius Sachs:			
For Salaries in Anthropology, 1904-5		85 00	
F. Augustus Schermerhorn:			
For Salaries in Architecture.....		3,500 00	
Wawepex Society:			
For John D. Jones Scholarship		200 00	69,061 54
			$1,441,321 04

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Schedule 5

RECEIPTS AND DISBURSEMENTS OF INCOME OF SPECIAL FUNDS FOR THE YEAR ENDING JUNE 30, 1904

FUND.	Debit Balances, June 30, 1903.	Credit Balances, June 30, 1903.	Income, 1903-1904.	Total Credits.	Expenditures, 1903-1904.	Debit Balances, June 30, 1904.	Credit Balances, June 30, 1904.
Avery Architectural Library Fund		$1,366 38	$1,275 00	$2,641 38	$2,258 68		$382 70
Barnard Fellowship Fund			400 00	400 00	400 00		
Barnard Library Fund		799 34	2,258 60	3,057 94	*2,765 75		781 45
Margaret Barnard Fund			489 26	489 26			
Beck Prize Fund		1,539 54	400 00	1,939 54	400 00		1,539 54
Beck Scholarship Fund			100 00	100 00	75 00		25 00
Beer Lecture Fund		184 41	400 00	584 41			584 41
Bennett Prize Fund		51 25	40 00	91 25			91 25
Bunner Prize Fund		159 50	40 00	199 50	40 00		159 50
Butler Fund			97 77	97 77			97 77
Campbell Scholarship Fund			240 00	240 00	240 00		
Carpentier Fund			4,000 00	4,000 00			4,000 00
Center Fund		446 94	6,691 00	7,137 94	$6,754 80		383 14
Chanler Prize Fund		45 00	45 00	90 00	45 00		45 00
Class of 1848 Scholarship Fund		142 50	404 96	547 46	300 00		247 46
Columbia Fellowship Fund		585 00	585 00	1,170 00	32 05		1,137 95
Cotheal Fund		4 14	270 00	274 14	219 68		54 46
Curtis Fellowship Fund		388 89	400 00	788 89			788 89
Curtis Medals Fund		44 60	40 00	84 60	42 20		42 40
DaCosta Professorship Fund			3,003 08	3,003 08	3,000 00		3 08
Darling Fund			28 00	28 00	28 00		
Dean Lung Professorship Fund		2,872 19	8,652 04	11,524 23	11,067 13		457 10
Drisler Classical Fund			400 00	400 00	400 00		
Dyckman Fund	100 00		400 00	300 00	499 98	$199 98	
Eaton Professorship Fund		577 89	4,745 01	5,322 90	5,000 00		322 90
Gebhard Fund			800 00	800 00	800 00		
Gottsberger Scholarship Fund			105 55	105 55			105 55
German Lecture Fund		67 02	40 00	107 02	24 80		82 22
Gottheil Lecture Fund		168 30	400 00	568 30	400 00		168 30
Illig Fund		124 49	80 00	204 49	20 00		184 49
Law Book Trust Fund		20	170 00	170 20	170 20		
Loubat Fund		2,504 06	430 49	2,934 55	154 66		2,779 89
Loubat Professorship Fund		1,622 20	4,000 00	5,622 20	3,821 34		1,800 86

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McKim Fellowship Fund		900 00	900 00	1,800 00	1,800 00		
Member of Class of '85 Fund		126 00	42 00	168 00			168 00
Moffatt Scholarship Fund			90 00	90 00	90 00		
Mosenthal Fellowship Fund		374 56	300 00	674 56			674 56
Perkins Fellowship Fund		240 82	228 00	468 82			468 82
Philolexian Centennial Washington Prize Fund		50 00	50 00	100 00			100 00
Philolexian Prize Fund		86 80	86 80	173 60	†173 60		
Phœnix Legacy		5,667 64	7,499 90	13,167 63	10,406 15		2,761 48
Proudfit Fellowship in Letters		30 00	600 00	630 00	555 00		75 00
Pulitzer Fund for Journalism			15,000 00	15,000 00	15,000 00		
Pulitzer Scholarship Fund		290 00	2,410 00	2,700 00	1,181 00		1,519 00
Schermerhorn Scholarship Fund			225 00	225 00	225 00		
Schiff Fellowship Fund		124 25	600 00	724 25	300 00		424 25
Schurz Fellowship Fund		400 00	400 00	800 00			800 00
Schurz Library Fund		175 69	400 00	575 69	217 60		358 09
Seidl Fund			480 00	480 00	480 00		
Stuart Scholarship Fund			240 00	240 00	150 00		90 00
Toppan Prize Fund			59 20	59 20			59 20
Trowbridge Fellowship Fund			500 00	500 00	500 00		
Trust Fund for Psychology		1,940 00	4,140 00	6,080 00	4,400 00		1,680 00
Tyndall Fellowship Fund			440 00	440 00	440 00		
Waring Fund (Mrs. Waring)	720 22		2,000 00	1,279 78	2,000 00	720 22	
Waring Fund (Miss Waring)	7 26		2,000 00	1,992 74	2,000 00	7 26	
SCHOOL OF MEDICINE.							
Carpentier Professorship Fund			426 66	426 66			426 66
Clark Scholarship Fund		72 33	575 00	647 33	675 00	27 67	
Harsen Scholarship Fund	70 07		1,189 28	1,119 21	1,000 00		119 21
Jacobi Ward Fund	1,081 91		1,400 00	318 09	1,400 00	1,081 91	
Proudfit Fellowship in Medicine		1,634 84	600 00	2,234 84			2,234 84
Sloane Maternity Hospital Fund			17,500 00	17,500 00	17,500 00		
Smith Prize Fund		500 56	110 00	610 56			610 56
Stevens Prize Fund		58 44	90 00	148 44			148 44
Vanderbilt Clinic Endowment Fund			5,650 00	5,650 00	5,650 00		
	$1,979 46	$26,365 77	$107,662 69	$132,049 00	105,102 62	$2,037 04	$28,983 42

* Transferred to Barnard Medal Account $200 00
§ Center Fund: Charged to Premium Account 54 80
† Income, 1903-4, transferred to Principal of Philolexian Prize Fund ... 86 80 341 60

$104,761 02

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Schedule 6

MISCELLANEOUS RECEIPTS

INVESTMENTS:		
57½ per cent. dividend on National Bank of Commerce stock	$632 50	
$6,000 Harlem River & Portchester R. R. Co's bonds due 1903	6,000 00	
Sale of "rights"—Consolidated Gas Co's stock	80 00	
" " Delaware & Hudson Co's stock	5 00	
" " Nat'l Bank of Commerce stock	45 00	$6,762 50
ENDOWMENT FUND:		
Sales of lots, 47th and 48th Street block	2,004,001 00	
Less amounts due on contracts	227,750 00	1,776,251 00
STUDENTS' LOAN FUND:		
Students' Notes paid	225 00	
Interest on Students' Notes	54 81	
Interest on deposits	144 05	423 86
SOCIETY OF THE NEW YORK HOSPITAL:		
Loan on Bonds and Mortgages on South Field, 114th and 116th Streets, Amsterdam Avenue and Broadway, N. Y.		1,500,000 00
CIVIL ENGINEERING SUMMER SCHOOL:		
Sales of Tents and Rents received from houses at Morris, Conn		124 53
DEPOSITS FOR APPARATUS		34,666 10
DEPOSITS FOR KEYS		1,316 80
SUMMER SESSION, 1903, Balance of Bursar's Account:		
Morningside	8,295 11	
College of Physicians and Surgeons	517 24	8,812 35
CIVIL ENGINEERING, Summer Course in Surveying:		
Refund of Advances in 1902-3 on account of 1903-4:		
General Expenses	69 93	
Instruments and Repairs	17	70 10
ADVANCE FEES, 1904-5		3,764 00
		$3,332,191 24

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CURRENT EXPENSES.—Schedule 7

GENERAL EXPENSES.	Expenditures in Detail.	Total Expenditures.	From General Income.	From Income of Special Funds.	From Funds for Designated Purposes.
BUSINESS ADMINISTRATION:					
Salaries	$17,506 40				
Clerk's Office, Sundries	1,500 00				
Treasurer's Office, Sundries	227 50				
Contingent Expenses	2,180 66				
Office Rent	1,100 00				
Insurance	8,079 35	$30,593 91	$30,593 91		
EDUCATIONAL ADMINISTRATION:					
Salaries	35,015 99				
Advertising	1,329 03				
Barnard Society	135 91				
Bureau of Supplies	5,000 00				
Commencement	1,637 36				
Diplomas	800 00				
Guarantee for University Quarterly	1,250 00				
Lectures	1,259 25				
Philolexian Society	142 73				
President's Emergency Fund	1,484 13				
Printing	7,766 42				
Telephone Service	714 33				
American Mathematical Society (5th annual payment)	100 00				
American School for Oriental Study in Palestine	200 00				
St. Louis Exposition, 1903-4	1,500 00				
St. Louis Exposition, Students' Fund	2,240 00				
Sextennial Catalogue	357 12				
Alcohol, School of Medicine	740 84				
Office Supplies and Sundries, School of Medicine	699 88				
Printing and Distributing Catalogue, School of Medicine	964 83				
Fees of Columbia Students at Barnard College	1,492 50				
" " " Teachers College	1,995 38	66,825 70	64,285 70		2,540 00
BUILDINGS AND GROUNDS (116th St.):					
Superintendent	5,000 00				
Boat House, Pier Rent and Maintenance	1,493 38				
Carried forward	$6,493 38	$97,419 61	$94,879 61		$2,540 00

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	Expenditures in Detail.	Total Expenditures.	From General Income.	From Income of Special Funds.	From Funds for Designated Purposes.
Brought forward	$6,493 38	$97,419 61	$94,879 61		$2,540 00
BUILDINGS AND GROUNDS (116th St.)—*Continued:*					
Cleaning	2,248 93				
Fuel	13,999 73				
Furniture and Fixtures	1,749 87				
Gas and Electricity	2,999 58				
Power House and Janitorial Service:					
Wages	35,675 34				
Repairs	7,994 01				
Superintendent's Supplies	3,499 67				
Uniforms	376 54				
Water Rates	3,809 69				
Repairs to Library Roof	1,000 00				
Gymnasium:					
Janitorial Service	1,796 48				
Laundry Service	1,798 00	83,441 22	82,441 22		1,000 00
BUILDINGS AND GROUNDS (59th St.):					
Assistant Superintendent	1,750 00				
Cleaning	1,184 33				
Fuel	7,529 60				
Furniture and Fixtures	1,449 56				
Gas and Electricity	1,979 88				
Power House and Janitorial Service:					
Wages	17,850 00				
Repairs	2,749 91				
Superintendent's Supplies	2,192 04				
Water Rates	1,976 20				
Planting, 1903-4	63 95	38,725 47	38,725 47		
SLOANE MATERNITY HOSPITAL		17,500 00		17,500 00	
VANDERBILT CLINIC		5,650 00		5,650 00	
JACOBI WARD FUND		1,400 00		1,400 00	

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CHAPEL:					
Chaplain	800 00				
Organist	350 00				
Choir	242 68	1,392 68	1,392 68		
LIBRARY:					
Salaries	37,564 82				
American Archæology Fund	112 16				
Avery Architectural Fund	2,258 68				
Barnard Funds	2,565 75				
Binding Manuscripts	10 20				
Books and Binding	10,245 86				
Chinese Bookbinding Fund	700 86				
Cotheal Fund	219 68				
Crimmins-Mansi Fund	15 45				
Dean Lung Fund	828 47				
Drisler Fund	400 00				
Equipment of Bibliographic Museum	498 00				
Incidentals	2,880 00				
Law-Book Trust Fund	170 20				
Lewisohn Dissertation Fund	50 00				
Loeb, James, Fund	171 68				
Low, William G., Fund	29 43				
Schurz Library Fund	217 60				
Special Fund for Additional Equipment of the Library	2,995 23				
Special Fund for Purchase of Books	11,384 50				
Medical School:					
Salaries	2,729 92				
Books and Binding					
Incidentals	266 18				
Special Equipment Fund	599 87	76,914 54	54,064 98	6,772 54	16,077 02
EMERITUS OFFICERS		5,750 00	5,750 00		
FELLOWSHIPS, SCHOLARSHIPS AND PRIZES:					
Alumni Association Scholarships (College)	600 00				
Alumni Competitive Scholarships (College)	450 00				
Barnard Fellowship	500 00				
Beck Prize	400 00				
Beck Scholarship	75 00				
Benefactors' Scholarships	10,725 00				
Brooklyn Scholarships	1,350 00				
Brooklyn Scholarships at Barnard	1,800 00				
Bunner Medal	40 00				
Carried forward	$15,940 00	$328,193 52	$277,253 96	$31,322 54	$19,617 02

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	Expenditures in Detail.	Total Expenditures.	From General Income.	From Income of Special Funds.	From Funds for Designated Purposes.
Brought forward	$15,940 00	$328,193 52	$277,253 96	$31,322 54	$19,617 02
FELLOWSHIPS, SCHOLARSHIPS AND PRIZES—*Continued:*					
Campbell Scholarships	300 00				
Chanler Historical Prize	45 00				
Class of 1848 Scholarships	300 00				
Class of '70 Fellowship	500 00				
Columbia Fellowship	32 05				
Curtis Medal	42 20				
Curtis Scholarships	450 00				
Darling Prize	28 00				
Drisler Fellowship	650 00				
Faculty Scholarships	3,100 00				
Fuller, Margaret, Graduate Scholarship	170 00				
Harper Scholarships	300 00				
Hewitt Scholarships	300 00				
Illig Medal	20 00				
International Scholarship in France	800 00				
Jones, John D., Scholarship	200 00				
Lawrence Annual Scholarship	200 00				
Loubat Prize Fund	154 66				
Loubat Professorship Fund	109 18				
Moffatt Scholarships	300 00				
McKim Fellowship	1,800 00				
Philolexian Prize Fund	86 80				
President's University Scholarships	750 00				
Proudfit Fellowship in Letters	555 00				
Pulitzer Scholarships	1,181 00				
Schermerhorn Scholarships	600 00				
Schiff Fellowship	300 00				
Stuart Scholarships	150 00				
Toppan Prize in Municipal Law	150 00				
Tyndall Fellowship	648 00				
University Fellowships	11,375 00				
University Scholarships	3,900 00				
SCHOOL OF MEDICINE.					
Alonzo Clark Scholarship	675 00				
Alumni Association Fellowships	1,500 00				
Harsen Scholarships	1,000 00	48,611 89	37,203 00	8,388 89	3,020 00
Payments made in 1903-4 (1)		376,805 41	314,456 96	39,711 43	22,637 02
Buildings and Grounds—Planting. Advanced in 1902-3 for 1903-4		636 05	436 05		200 00
Total for 1903-4 (2)		$377,441 46	$314,893 01	$39,711 43	$22,837 02

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PHILOSOPHY, PHILOLOGY AND LETTERS.					
COMPARATIVE LITERATURE:					
Salaries	4,400 00				
Departmental Appropriation	100 00	4,500 00	4,500 00		
ENGLISH:					
Salaries	26,670 00				
Departmental Appropriation	100 00	26,770 00	26,770 00		
GERMAN:					
Salaries	17,491 70				
Departmental Appropriation	43 62				
German Lecture Fund	1,049 80				
Special Equipment Fund	13 56	18,598 68	16,735 32	824 80	1,038 56
GREEK:					
Salaries	17,500 00				
Departmental Appropriation	50 00	17,550 00	17,550 00		
LATIN:					
Salaries	14,500 00				
Departmental Appropriation	40 85				
American School at Rome	250 00	14,790 85	14,790 85		
MUSIC:					
Salaries	7,650 00				
Departmental Appropriation	700 00				
Incidentals	600 00	8,950 00	1,650 00	6,700 00	600 00
ORIENTAL LANGUAGES:					
Salaries	15,900 00				
Dean Lung Fund Payments	4,727 86				
Departmental Appropriations:					
Semitic	49 55				
Indo-Iranian	51 40				
Chinese	10 80	20,739 61	7,499 55	10,638 66	2,601 40
PHILOSOPHY AND PSYCHOLOGY:					
Philosophy, Salaries	16,244 50				
" Departmental Appropriation	33 31				
Psychology, Salaries	10,400 00				
" Departmental Appropriation	499 76	27,177 57	20,277 57	4,400 00	2 500 00
Carried forward		$139,076 71	$109,773 29	$22,563 46	$6,739 96

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	Expenditures in Detail.	Total Expenditures.	From General Income.	From Income of Special Funds.	From Funds for Designated Purposes.
Brought forward		$139,076 71	$109,773 29	$22,563 46	$6,739 96
ANTHROPOLOGY:					
Salaries	8,600 00				
Departmental Appropriation	50 00	8,650 00	4,550 00	3,600 00	500 00
ROMANCE LANGUAGES AND LITERATURES:					
Salaries	23,700 00				
Departmental Appropriation	82 30				
French Lecture Fund	240 00	24,022 30	23,782 30		240 00
NATURAL AND EXACT SCIENCES.		$171,749 01	$138,105 59	$26,163 46	$7,479 96
ARCHITECTURE:					
Salaries	17,800 00				
Departmental Appropriation	1,122 25	18,922 25	15,297 25		3,625 00
ASTRONOMY:					
Salaries	7,900 00				
Departmental Appropriation	250 00				
Observatory, for Apparatus	209 61				
Geodesy, for Instruments	250 00				
Summer Course in Geodesy	800 00				
Computers	500 00				
Catherine Wolfe Bruce Fund	2,687 65	12,597 26	9,909 61		2,687 65
BOTANY:					
Salaries	9,000 00				
Departmental Appropriation	609 72	9,609 72	9,599 72		10 00
CHEMISTRY:					
Salaries	7,500 00				
" General Chemistry	4,600 00				
" Analytical Chemistry	12,000 00				
" Industrial Chemistry	4,000 00				
" Organic Chemistry	3,100 00				
" Laboratory at 59th St.	3,800 00				
" Barnard College	2,300 00				
Additional Servants	1,551 27				
Supplies	14,866 85	53,718 12	52,218 12	1,500 00	

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CIVIL ENGINEERING:					
Salaries	11,100 00				
Departmental Appropriation	349 54				
Summer School:					
Assistants	1,500 00				
Janitor	250 00				
General Expenses	69 55	13,269 09	13,269 09		
ELECTRICAL ENGINEERING:					
Salaries	9,361 02				
Departmental Appropriation	1,019 31	10,380 33	9,380 56	999 77	
MECHANICAL ENGINEERING:					
Salaries	18,000 00				
Departmental Appropriation	498 96				
Mechanical Laboratory and Summer School	2,700 00				
Drawing	300 00				
Use of Teachers College Shops	5,600 00				
Special Fund for Equipment	105 15	27,204 11	27,098 96		105 15
GEOLOGY:					
Salaries	10,300 00				
Departmental Appropriation	700 00				
Summer Course	200 00	11,200 00	11,000 00		200 00
MATHEMATICS:					
Salaries	26,500 00				
Departmental Appropriation	75 00	26,575 00	26,575 00		
MECHANICS:					
Salaries	13,100 00				
Departmental Appropriation	40 93				
Apparatus	17 00	13,157 93	13,140 93	17 00	
METALLURGY:					
Salaries	7,700 00				
Departmental Appropriation	744 43				
Summer Course	399 93				
Special Fund	1,523 44	10,367 80	8,099 93	744 43	1,523 44
Carried forward		$207,001 61	$195,589 17	$3,261 20	$8,151 24

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	Expenditures in Detail.	Total Expenditures.	From General Income.	From Income of Special Funds.	From Funds for Designated Purposes.
Brought forward		$207,001 61	$195,589 17	$3,261 20	$8,151 24
MINERALOGY:					
Salaries	$7,000 00				
Departmental Appropriation	299 99				
Special Equipment Fund	53 12	7,353 11	7,299 99		53 12
MINING:					
Salaries	11,999 38				
Departmental Appropriation	1,748 68				
Special Fund for Purchase of Equipment	721 27	14,469 33	13,748 06		721 27
PHYSICAL EDUCATION:					
Salaries	6,454 63				
Supplies and Repairs	499 58	6,954 21	6,954 21		
PHYSICS:					
Salaries	21,566 66				
Departmental Appropriation	749 97				
Additional Equipment	6,394 98	28,711 61	21,566 66	7,144 95	
ZOÖLOGY:					
Salaries	17,822 89				
Departmental Appropriation	1,199 50				
Dyckman Fund Payments	499 98				
Journal for Experimental Zoölogy	1,000 00				
Marine Table—Wood's Holl	100 00				
Senff Zoölogical Expedition Fund	431 61				
Special Equipment Fund, 1900	3 93				
Special Fund for Equipment	25				
Special Fund for 1901	110 56	21,168 72	16,122 39	3,499 98	1,546 35
Payments, 1903–4	(1)	285,658 59	261,280 48	13,906 13	10,471 98
Advanced 1902-3 against Appropriations for 1903–4					
Civil Engineering	1,750 00				
Less Refund	70 10	1,679 90	1,679 90		
Total for 1903–4	(2)	287,338 49	262,960 38		

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SCHOOL OF LAW.					
Salaries	39,100 00				
Departmental Appropriation	249 74	39,349 74	39,349 74		
		39,349 74	39,349 74		
SCHOOL OF POLITICAL SCIENCE.					
ECONOMICS AND SOCIAL SCIENCE:					
Salaries	23,400 00				
Departmental Appropriation	74 70				
Equipment for Statistical Laboratory	48 80	23,523 50	23,523 50		
HISTORY:					
Salaries	20,600 00				
Departmental Appropriation	60 79				
Assistance for Departmental Reading Room	499 58				
Historical Reading Room Equipment Fund	24 68	21,185 05	21,160 37		24 68
PUBLIC LAW AND JURISPRUDENCE:					
Salaries	23,500 00				
Departmental Appropriation	46 32	23,546 32	18,546 32	5,000 00	
		68,254 87	63,230 19	5,000 00	24 68
SCHOOL OF MEDICINE.					
ANATOMY:					
Salaries	18,108 32				
Supplies	3,296 66	21,404 98	21,404 98		
CLINICAL INSTRUCTION:					
Salaries		7,300 00	7,300 00		
DISEASES OF CHILDREN:					
Salaries		1,800 00	1,800 00		
GYNECOLOGY:					
Salaries	3,100 00				
Departmental Appropriation	49 50	3,149 50	3,149 50		
MATERIA MEDICA AND THERAPEUTICS:					
Salaries	2,800 00				
Departmental Appropriation	568 70				
Apparatus and Equipment	1,299 60				
Installation of Pharmaceutical Laboratory	1,799 11	6,467 41	6,467 41		
Carried forward		$40,121 89	$40,121 89		

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	Expenditures in Detail.	Total Expenditures.	From General Income.	From Income of Special Funds.	From Funds for Designated Purposes.
Brought forward		$40,121 89	$40,121 89		
MENTAL AND NERVOUS DISEASES:					
Salaries		1,800 00	1,800 00		
OBSTETRICS:					
Salaries	$7,850 00				
Departmental Appropriation	49 95	7,899 95	7,899 95		
PATHOLOGY:					
Salaries	27,600 00				
Supplies	2,505 85				
Apparatus	185 36				
Departmental Library	499 06	30,791 17	30,791 17		
PHYSIOLOGICAL CHEMISTRY:					
Salaries	3,905 00				
Departmental Appropriation, including Special Apparatus	1,793 84				
Alterations in Physiological Laboratory	154 62	5,853 46	5,853 46		
PHYSIOLOGY:					
Salaries	14,550 00				
Departmental Appropriation	1,060 03	15,610 03	15,010 03		$600 00
PRACTICE OF MEDICINE:					
Salaries	11,500 00				
Departmental Appropriation	149 68	11,649 68	11,649 68		
SURGERY:					
Salaries	11,700 00				
Departmental Appropriation	373 29				
Surgical Research Laboratory	98 89	12,172 18	12,073 29		98 89
		$125,898 36	$125,199 47		$698 89

SUMMARY OF SCHEDULE 7.

	From General Income.	From Income of Special Funds.	From Receipts for Designated Purposes.	Totals.
General Expenses	$314,893 01	$39,711 43	$22,837 02	$377,441 46
Philosophy, Philology and Letters	138,105 59	26,163 46	7,479 96	171,749 01
Natural and Exact Sciences	262,960 38	13,906 13	10,471 98	287,338 49
School of Law	39,349 74			39,349 74
School of Political Science	63,230 19	5,000 00	24 68	68,254 87
School of Medicine	125,199 47		698 89	125,898 36
	$943,738 38	$84,781 02	$41,512 53	1,070,031 93
Advance payments made in 1902-3, net				2,315 95
Payments made in 1903-4 for Current Expenses				$1,067,715 98

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Schedule 8

MISCELLANEOUS PAYMENTS

CHARGEABLE AGAINST INCOME OF SPECIAL FUNDS:			
Mrs. Anton Seidl (Seidl Fund)		$480 00	
Mrs. William P. Trowbridge (Trowbridge Fund)		500 00	
Mrs. George E. Waring (Waring Fund)		2,000 00	
Miss Effie Blunt Waring (Waring Fund)		2,000 00	
Journalism Fund		15,000 00	$19,980 00
CHARGEABLE AGAINST PRINCIPAL OF SPECIAL FUNDS:			
Phœnix Legacy, Legal Expenses			1,515 00
INVESTMENTS IN PERSONAL SECURITIES:			
Phœnix Legacy:			
2 shares National Bank of Commerce stock	$280 00		
20 shares Delaware & Hudson Co's stock	2,700 00	2,980 00	
Pulitzer Fund for School of Journalism:			
Received from Mr. Joseph Pulitzer as part of $1,000,000, gift for School of Journalism—			
$186,000 Northern Pacific-Great Northern 4% Joint Bonds, due 1921 (C. B. & Q: coll.)	175,000 00		
10,000 shares Pennsylvania R.R. Co's stock	625,000 00	800,000 00	
Sloane Maternity Hospital Fund:			
Received from Mr. and Mrs. William D. Sloane—			
$125,000 Chicago & Northwestern R.R. Co's 5% Sinking Fund Debenture Bonds, due 1933	125,000 00		
$75,000 Duluth & Iron Range R.R. Co's 5% First Mortgage Bonds, due 1937	75,000 00		
$25,000 Northern Pacific-Great Northern 4% Joint Bonds, due 1921 (C. B. & Q. coll.)	25,000 00	225,000 00	
Other Special and General Funds:			
$9,000 Oregon Short Line R.R. Co's 5% Consolidated First Mortgage Bonds, due 1946	9,891 25		
Bonds and Mortgages taken in part payment in sales of 47th and 48th Street lots:			
No. 17 West 47th Street, Louisa M. Agostini	61,500 00		
Carried forward	$71,391 25	$1,027,980 00	$21,495 00

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Brought forward.....	$71,391 25	$1,027,980 00	$21,495 00
No. 21 West 17th Street, Marian de Forest Clark.....	60,000 00		
No. 33 West 47th Street, Frances F. Wood.....	49,500 00		
No. 10 West 48th Street, Sally P. Sampson.....	40,000 00		
No. 30 West 48th Street, William H. Vanden Burg.....	50,000 00		
No. 44 West 48th Street, Elizabeth Moore.....	32,500 00		
No. 56 West 48th Street, William Hanford White.....	36,500 00		
No. 58 West 48th Street, Amy A. Sands.....	35,000 00	374,891 25	1,402,871 25
UNIVERSITY: LAND, BUILDINGS AND EQUIPMENT, MORNINGSIDE:			
South Field, Balance of purchase price.	1,991,727 29		
South Field, Legal Expenses and Surveying.....	496 07	1,992,223 36	
South Field, Account grading.....		107 95	
Hartley Hall.....		5,912 50	
Dormitory B.....		5,912 50	
University Hall, Equipment.....		911 87	
Journalism Building.....		489 72	
Assessment, 129th Street Sewer.....		749 25	2,006,307 15
CIVIL ENGINEERING SCHOOL, MORRIS, CONN.:			
Purchase of additional land and improvements.....			5,096 37
ENDOWMENT ACCOUNT:			
Commissions, Surveys, Legal and other Expenses of sale of lots, 47th and 48th Street block.....		28,554 44	
Less Title Guarantee & Trust Co's account not rendered.....		8,654 94	19,899 50
COLUMBIA COLLEGE NOTES.....			250,000 00
DEPOSITS FOR APPARATUS: REFUND			34,614 20
DEPOSITS FOR KEYS: REFUND.....			1,207 85
ADVANCE PAYMENTS AGAINST APPROPRIATIONS FOR 1904-5:			
Summer Session, 1904, Morningside...	1,499 79		
" " " Medical School	327 43	1,827 22	
St. Louis Exposition Exhibit.....		885 00	
Buildings and Grounds, Planting.....		314 77	
Summer School of Civil Engineering:			
General Expenses.....	1,200 00		
Tents and Improvements.....	250 00		
Instruments and Repairs.....	750 00	2,200 00	5,226 99
			$3,746,718 31

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FUNDS FOR DESIGNATED PURPOSES. RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1904.—Schedule 9

ACCOUNTS.	Credit Balances, June 30, 1903.	Receipts, 1903–1904.	Total Credits.	Payments, 1903–1904.	Credit Balances, June 30, 1904.
EDUCATIONAL ADMINISTRATION:					
American Mathematical Society Gift	$100 00		$100 00	$100 00	
American School for Oriental Study, etc	50 00	$150 00	200 00	200 00	
St. Louis Exposition Fund for Students		5,000 00	5,000 00	2,240 00	$2,760 00
BUILDINGS AND GROUNDS:					
Shrubs and Trees		200 00	200 00	200 00	
Library Building: Drinking Fountain		1,000 00	1,000 00		1,000 00
Library Building: Repairing Roof			*1,000 00	1,000 00	
LIBRARY:					
Additional Equipment and other Special Needs			*5,000 00	3,125 23	1,874 77
Chinese Bookbinding Fund	1,498 25		1,498 25	700 86	793 39
Crimmins-Mansi Fund	103 15		103 15	15 45	86 70
Lewisohn Dissertation Fund	874 65		874 65	50 00	824 65
James Loeb Fund	21 84	150 00	171 84	171 68	16
William G. Low Fund	314 93	250 00	564 93	29 43	535 50
Special Fund for Purchase of Books	2,459 90	10,125 00	12,584 90	11,384 50	1,200 40
Special Equipment of Library at Medical School			*600 00	599 87	13
FELLOWSHIPS, SCHOLARSHIPS AND PRIZES:					
Alumni Fellowships, School of Medicine		1,500 00	1,500 00	1,500 00	
Margaret Fuller Graduation Scholarship	170 00		170 00	170 00	
International Scholarships in France	800 00		800 00	800 00	
John D. Jones Scholarship		200 00	200 00	200 00	
Lawrence Annual Scholarship		200 00	200 00	200 00	
Toppan Prize in Municipal Law	150 00		150 00	150 00	
PHILOSOPHY, PHILOLOGY AND LETTERS:					
Anthropology: Salaries		735 00	735 00	500 00	235 00
Chinese: Salaries	2,000 00		2,000 00	1,000 00	1,000 00
German: Lecture Fund		1,025 00	1,025 00	1,025 00	
German: Special Equipment Fund	13 72		13 72	13 56	16
Music: Incidentals		600 00	600 00	600 00	
Oriental Languages: Salaries		1,600 00	1,600 00	1,600 00	
Carried forward	$8,550 44	$22,735 00		$27,575 58	$10,309 86

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FUNDS FOR DESIGNATED PURPOSES. RECEIPTS AND DISBURSEMENTS FOR THE YEAR ENDING JUNE 30, 1904.—*Continued*

ACCOUNTS.	Credit Balances, June 30, 1903.	Receipts, 1903–1904.	Total Credits.	Payments, 1903–1904.	Credit Balances, June 30, 1904.
Brought forward	$8,550 44	$22,735 00		$27,575 58	$10,309 86
PHILOSOPHY, PHILOLOGY AND LETTERS.—*Continued.*					
Oriental Languages: Departmental use		1 40	1 40	1 40	
Philosophy and Psychology: Salaries	5,000 00	20,000 00	25,000 00	2,500 00	22,500 00
Psychology and Anthropology: Special Equipment Fund, 1900	12 18		12 18		12 18
Romance Languages and Literatures: French Lecture Fund	2 75	237 25	240 00	240 00	
NATURAL AND EXACT SCIENCES:					
Architecture: Salaries		3,500 00	3,500 00	3,500 00	
Architecture: Departmental use			*125 00	125 00	
Architecture: Alex. M. Welch Gift	839 00		839 00		839 00
Astronomy: Catherine Wolfe Bruce Fund	11,544 55	1,334 92	12,879 47	2,687 65	10,191 82
Astronomy: Publication of Work on Variation of Latitude	1,600 00		1,600 00		1,600 00
Botany: Departmental use		10 00	10 00	10 00	
Geology: Departmental use		200 00	200 00	200 00	
Mechanical Engineering: Special Fund for Equipment	5 15	100 00	105 15	105 15	
Mechanics: Special Equipment Fund, 1900	400 08		400 08		400 08
Metallurgy: Special Fund	182 52		†1,682 52	1,523 44	159 08
Mineralogy: Special Equipment Fund	97 15		97 15	53 12	44 03
Mining and Metallurgy: Special Fund	2,451 55	90 86	2,542 41	†.....	1,042 41
Mining: Special Fund	38 70	852 11	890 81	721 27	169 54
Zoölogy: Journal for Experimental Zoölogy			*5,000 00	1,000 00	4,000 00
Zoölogy: Senff Zoölogical Expedition	660 56		660 56	431 61	228 95
Zoölogy: Special Equipment Fund, 1900	3 93		3 93	3 93	
Zoölogy: Special Fund for Equipment	25		25	25	
Zoölogy: Special Fund for 1901	135 00		135 00	110 56	24 44
SCHOOL OF POLITICAL SCIENCE:					
Historical Reading Room Equipment Fund	53 91		53 91	24 68	29 23
SCHOOL OF MEDICINE:					
Physiology: Salaries	600 00		600 00	600 00	
Physiology: Laboratory Equipment	44 07		44 07		44 07
Surgery: Research Laboratory		*.....	*100 00	98 89	1 11
Anonymous Gift for Current Expenses		20,000 00	20,000 00	*.....	8,175 00
	$33,221 74	$69,061 54		$41,512 53	$39,770 75

*Transferred from Anonymous Gift to the credit of Library, Zoölogy, Philosophy, Architecture and Surgery..... $11,825
†Transferred from Mining and Metallurgy, Special Fund, to Metallurgy, Special Fund..... 1,500

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Schedule 10

INTEREST ACCOUNT

INTEREST PAID:		
On Bloomingdale Site Mortgage	$37,500 00	
On South Field Mortgages	30,000 00	
On Columbia College 3% Mortgage Gold Bonds	57,300 00	
On Columbia College Notes	44,842 37	
On Williamsbridge Property Mortgage	1,920 00	
On Loubat Annuity Mortgage	17,920 00	
On Special Fund for Mining and Metallurgy	65 86	
On Uninvested Special Funds	11,632 83	
On Philolexian Prize Fund	86 80	$201,267 86
INTEREST RECEIVED:		
On Purchase Money Mortgage on Wheelock Property, made by Jacob D. Butler (less amount apportioned to various Special Funds)	304 92	
On Investments	5,775 00	
On Deposits of General Funds	5,003 63	
On Deposits of Special Funds	3,038 97	14,122 52
		187,145 34
DEDUCT INTEREST APPORTIONED to Special Real Estate Account, as follows:		
Williamsbridge Property	5,790 27	
No. 18 East 16th Street	6,267 66	
Gaillard-Loubat Library Endowment Fund	24,874 90	36,932 83
		150,212 51
GIFT, 1901, for Interest Account, 1903-4	1,000 00	
GIFT, 1904, for Interest Account, 1902-3	5,000 00	6,000 00
		$144,212 51

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SPECIAL REAL ESTATE INCOME AND EXPENSE ACCOUNT.—Schedule 11

	Expenses, 1903-1904.	Interest Apportionment.	Total Debits.	Receipts.	Deficit Balance, June 30, 1904.
WILLIAMSBRIDGE PROPERTY:					
Taxes and Water Rates	$2,376 25				
Assessments: Opening, Regulating, etc., Gun Hill Road and other streets	42,531 88				
Legal Expenses in reducing Woodlawn Road Assessment	36 93				
Legal Expenses in obtaining award and adjusting assessments	2,013 50				
Insurance	139 08				
Caretaker	600 00				
Sundries	496 74				
	48,494 38				
Interest on Mortgage		$1,920 00			
Interest on Advances		3,870 27	$54,214 65		
Award for Land taken by City for Gun Hill Road				$28,941 12	
Rents				895 00	
				29,066 12	$25,148 53
GENERAL SOCIETY PROPERTY (18 East 16th Street):					
Taxes and Water Rates	1,662 59				
Assessment, Elm Street Opening	88 84				
Insurance	133 34				
Caretaker	480 00				
Sundries	137 27				
	2,501 97				
Interest on Advances		6,267 66	8,769 63		
Rents				500 00	8,269 63
					33,418 16
GAILLARD-LOUBAT LIBRARY ENDOWMENT FUND:					
Taxes and Water Rates	13,810 10				
Assessment in Watt Street Opening	219 72				
Legal Expenses—College *vs.* Carl M. Von Bauer	25 25				
Insurance	70 00				
Agents' Commissions	1,266 54				
Improvements and Repairs	5,315 52				
Annuity to Jos. F. Loubat	60,000 00				
	80,707 13				
Interest on Mortgage		17,920 00			
Interest on Advances		6,954 90	105,582 03		
Rents				54,662 20	
New York Life Insurance and Trust Co. Annuity				60,000 00	
				114,662 20	*9,080 17
	$131,033 48	$36,932 83	$166,566 31	$144,228 32	$24,337 99

*Surplus.

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Schedule 12

SPECIAL REAL ESTATE ACCOUNT

WILLIAMSBRIDGE PROPERTY:

June 30, 1903—To Balance.....Dr.	$134,117 87	
June 30, 1904—To Deficit Income.....	25,148 53	
To Balance, Dr.....		$159,266 40

18 EAST SIXTEENTH STREET:

June 30, 1903—To Balance.....Dr.	$155,690 41	
June 30, 1904—To Deficit Income.....	8,269 63	
To Balance, Dr.....		163,960 04

LOURAT PROPERTY, 503-511 BROADWAY:

June 30, 1903—To Balance.....Dr.	$638,850 03	
June 30, 1904—By Surplus Income.....	9,080 17	
To Balance, Dr.....		629,769 86

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Schedule 13

SUMMARY

EDUCATIONAL EXPENSE AND ADMINISTRATION:	Dr.	Cr.
General Income of the Corporation 1903–4 (Schedule 3, page 6)		$943,979 66
Current Expenses chargeable against General Income of the Corporation for 1903–4 (Summary of Schedule 7, 1st column, page 24)	$943,738 38	
Balance, Surplus	241 28	
	$943,979 66	$943,979 66

INCOME AND GENERAL EXPENSES, 1903–4:	
Interest Account Deficit (Schedule 10, page 29)	$144,212 51
Educational Expenses and Administration, Surplus	241 28
Net Deficit, 1903–4	$143,971 23

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Schedule 14

PRINCIPAL OF SPECIAL FUNDS

AVERY ARCHITECTURAL FUND:

Gift of Samuel P. Avery and Mary Ogden Avery in memory of their deceased son, Henry Ogden Avery. The income of the fund to be applied to the purchase of books relating to architecture, decorations and allied arts. Established 1890..... $30,000 00

BARNARD FELLOWSHIP FUND:

Legacy from the late President Barnard to establish the "Barnard Fellowship for Encouraging Scientific Research." Established 1889..... 10,000 00

BARNARD LIBRARY FUND:

The residuary estate of the late President Barnard was left to the Trustees of Columbia College to constitute a fund under the name of the "Barnard Fund for the Increase of the Library," the income of which is to be devoted to the purchase of books, especially those relating to physical and astronomical science; but out of the income of this fund so much as may be necessary is to be applied in procuring a gold medal of the bullion value of not less than $200, to be styled the "Barnard Medal for Meritorious Service to Science," to be awarded every five years on the judgment of the National Academy of Science of the United States. The medal will be next awarded in June, 1905. Established 1889..... 59,501 64

MARGARET BARNARD FUND:

The residuary estate of the late Margaret Barnard, widow of the late President Barnard, was left to the Trustees of Columbia College "to augment the sum left by my late husband." Established 1892..... 16,231 67

BECK FUNDS:

The late Charles Bathgate Beck bequeathed the sum of $10,000 to be applied as follows: $2,000 to found one free scholarship, the income to be applied "to the free yearly tuition and education in said College of one student forever, under such terms and conditions as the rules of said College and said Trustees shall prescribe." The income of the remaining $8,000 to be used for an annual prize "to the student in the Law School who shall pass the best examination in Real Estate Law." Established 1894.

Beck Scholarship Fund.....	$2,000 00	
Beck Prize Fund.....	8,000 00	
		10,000 00

JULIUS BEER LECTURE FUND:

Legacy of the late Julius Beer. Established 1903..... 10,000 00

Carried forward..... $135,733 31

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Brought forward	$135,733 31
BENNETT PRIZE FUND:	
Gift of James Gordon Bennett, the income, or a medal of equal value, to be given for "an essay in English prose upon some subject of contemporaneous interest in the domestic or foreign policy of the United States." Established 1893	1,000 00
BUNNER PRIZE FUND:	
Gift of friends of the late Henry Cuyler Bunner, the income to be used to provide every year the "H. C. Bunner Medal," to be given to the student who shall present the best essay on an assigned subject in American Literature. Established 1896	1,000 00
RICHARD BUTLER SCHOLARSHIP FUND:	
Gift of Mrs. Richard Butler in memory of her deceased husband, Richard Butler, open to students born in the State of Ohio. Established 1903	5,000 00
CAMPBELL SCHOLARSHIP FUND:	
Gift of $3,000 each from Miss Maria L. Campbell and Miss Catherine B. Campbell for the establishment of two scholarships in the College, in memory of Robert B. Campbell, of the class of 1844, and Henry B. Campbell, of the class of 1847. Established 1900	6,000 00
JAMES S. CARPENTIER FUND:	
Gift from General H. W. Carpentier to establish a fund in memory of his brother, James S. Carpentier, for the benefit of the Law School. Established 1903	100,000 00
CARPENTIER PROFESSORSHIP OF PEDIATRICS FUND:	
Gift from General H. W. Carpentier towards a professorship in the Medical School, in memory of Reuben S. Carpentier. Established 1904	60,000 00
CENTER FUND:	
Gift of Mary E. Ludlow, in memory of her son, the late Robert Center, the income to be applied either to the salary of a Professorship of Music, or to be used in any one or more of these ways or such other ways as shall in the judgment of the Trustees tend most effectively to elevate the standard of musical instruction in the United States, and to offer the most favorable opportunities for acquiring instruction of the highest order. Established 1896	178,046 50
CHANLER PRIZE FUND:	
Bequest of J. Winthrop Chanler, of the class of 1847, to found an annual prize for "the best original manuscript essay in English prose on the History of Civil Government of America, or some other historical subject." Established 1877	1,000 00
Carried forward	$487,779 81

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Brought forward	$487,779 81
CLARK SCHOLARSHIP FUND:	
Bequest of the late Alonzo Clark, M.D., formerly President of the College of Physicians and Surgeons, for the purpose of promoting the discovery of new facts in medical science. First prize bestowed October 1, 1894	14,000 00
CLASS OF 1848 SCHOLARSHIP FUND:	
Gift of an anonymous friend, 1902	10,000 00
COLUMBIA FELLOWSHIP FUND:	
Established by the Trustees for a traveling fellowship in the Department of Architecture in recognition of the liberality of Mr. F. Augustus Schermerhorn, of the class of 1868, to this Department. The fellowship is awarded in even-numbered years. Established 1889	13,000 00
COTHEAL FUND:	
Gift of Mrs. James R. Swords and Mrs. Samuel Lawrence as a memorial to their brother, Alexander I. Cotheal, the income to be used for the purchase of books in the Oriental Languages, or relating to Oriental countries. Established 1896	6,000 00
CURTIS FELLOWSHIP FUND:	
Gift of the George William Curtis Memorial Committee to establish a fellowship in the School of Political Science in Columbia University, to bear the name and to perpetuate the memory of the late George William Curtis, the holder of the fellowship to devote himself to the study of the science of government, with a special view to its application to the then existing condition of the United States, or of the State or City of New York, and to publish a monograph on some subject relating to the then existing condition of the United States, etc. Established 1899	10,000 00
GEORGE WILLIAM CURTIS MEDALS FUND:	
Gift from an associate of George William Curtis in the Civil Service Reform work, 1902	1,000 00
DACOSTA PROFESSORSHIP FUND:	
The late Charles M. DaCosta, a member of the class of 1855, bequeathed to the Trustees of Columbia College $100,000. Of this sum, the Trustees, on October 6, 1891, for the endowment of a chair in the Department of Biology, set apart $80,000, which has been increased by the profits of certain investments to	86,576 83
EDWARD A. DARLING PRIZE FUND:	
Bequest of the late Edward A. Darling, formerly Superintendent of Buildings and Grounds, the income to be awarded as a prize each year at Commencement to that student of the senior class in Engineering whose work during his course of study is voted by his classmates to have been the most honest and thorough. Established 1903	1,000 00
Carried forward	$629,356 64

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Brought forward	$629,365 64
DEAN LUNG PROFESSORSHIP OF CHINESE FUND:	
Gift of an anonymous friend to found a department of Chinese Languages, Literatures, Religion and Law, and especially for the establishment of a Professorship to be known as the Dean Lung Professorship of Chinese. Established 1901	213,000 00
DRISLER CLASSICAL FUND:	
Gift of President Low for the endowment of the "Henry Drisler Classical Fund" for the purchase of books, maps, charts, busts and such other equipment as will tend to make instruction in the classics more interesting and effective. Established 1894	10,000 00
DYCKMAN FUND:	
Gift of Isaac Michael Dyckman in memory of his uncles, Dr. Jacob Dyckman and Dr. James Dyckman, both of the College of Physicians and Surgeons, to establish the "Dyckman Fund for the Encouragement of Biological Research," "the interest derived therefrom to be devoted annually to such object consistent with the purposes of the gift, as shall be recommended by the Department of Zoölogy and approved by the President." Established 1899	10,000 00
EATON PROFESSORSHIP FUND:	
Legacy from the late Dorman B. Eaton to endow and maintain a Professorship of Municipal Science and Administration in the College. Established 1903	100,000 00
GEBHARD FUND:	
Bequest of Frederick Gebhard to found a Professorship of German Language and Literature. Established 1843	20,000 00
GERMAN LECTURE FUND:	
Gifts for an endowment for Public Lectures in German at the University, the income to be used for advertising, printing, slides, etc. Established 1901	1,000 00
GUSTAV GOTTHEIL FELLOWSHIP FUND:	
Gift from Temple Emanu-El to establish this fellowship, the holder of which is to be nominated by the Professors in the Department of Semitic Languages, subject to confirmation by the Trustees. Established 1903	10,000 00
CORNELIUS HEENEY GOTTSBERGER SCHOLARSHIP FUND:	
Bequest of Ellen Josephine Banker to establish a scholarship to bear the name and be in memory of her deceased brother, Cornelius Heeney Gottsberger. Established 1904	9,500 00
HARSEN SCHOLARSHIP FUND:	
Founded by the late Jacob Harsen, M.D., in 1859, the income to be given in prizes. Under an order of the N. Y. Supreme Court in 1903, the income is thereafter to be used for scholarships in the Medical School, to be known as the Harsen Scholarships	31,114 10
Carried forward	$1,033,970 74

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Brought forward	$1,033,970 74
ILLIG FUND:	
Bequest of William C. Illig, of the Class of 1882, School of Mines, the income to be applied to the purchase of prizes to be awarded to students of the graduating class of the School of Mines, who shall, in the judgment of the faculty, have merited the same by commendable proficiency in such scientific subjects as the Faculty may designate. Established 1898	2,000 00
JACOBI WARD FUND:	
Gift of an anonymous donor "to endow a ward for children in the Roosevelt Hospital." Established in 1899 as a memorial to the donor's wife and in honor of Dr. Abraham Jacobi	50,000 00
LAW-BOOK TRUST FUND:	
Created by act of the Trustees on March 5, 1900, by the consolidation of the Alexander Cole's gift ($1,500), John J. Jenkins Legacy ($500); John McKeon Fund ($1,000), Samson Simpson Fund ($1,000) and Edgar J. Nathan Gift ($250), the income to be applied to the purchase of law books	4,250 00
LOUBAT FUND:	
Gift of Joseph F. Loubat for prizes to be given every five years for works in the English Language on the History, Geography, Archæology, Ethnology, Philology or Numismatics of North America. First prize, $1,000; second prize, $400. Established 1892	7,000 00
LOUBAT PROFESSORSHIP FUND:	
Gift from Joseph F. Loubat to establish the Loubat Professorship in American Archæology. Established 1903	100,000 00
McKIM FELLOWSHIP FUND:	
Gift of Charles F. McKim for two traveling fellowships in the Department of Architecture. The fellowships are awarded in odd numbered years. Established in 1889	20,000 00
MEMBER OF CLASS OF '85 FUND:	
Gift of Grant Squires, of the class of 1885, the income to be awarded every five years to defray the expenses of a sociological investigation that promises results of a scientific value. Established 1895	1,050 00
MOFFATT SCHOLARSHIP FUND:	
Legacy from William B. Moffatt, M.D., of the class of 1838, "for the purpose of one or more scholarships for the education and instruction of one or more indigent students." Established 1862	2,000 00
MOSENTHAL FELLOWSHIP FUND:	
Gift of the friends of the late Joseph Mosenthal to found a fellowship in Music. Established 1898	7,500 00
Carried forward	$1,227,770 74

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Brought forward	$1,227,770 74
PERKINS FELLOWSHIP FUND:	
Legacy from Willard B. Perkins, the income to be expended every four years for a traveling fellowship in the Architectural Department. Established 1898. The fellowship will be next awarded in June, 1906	5,700 00
PHILOLEXIAN CENTENNIAL WASHINGTON PRIZE FUND:	
Gift to the Philolexian Society from J. Ackerman Coles, of the class of 1864, the accumulated income to be expended every four years for a duplicate of the life-size bronze bust of George Washington, modeled from life at Mount Vernon, by Jean Antoine Houdon. Bust to be cast at the Barbedienne Foundry, Paris, France, and to be given to that member of the Philolexian Society, who, in the opinion of the President of the University, the President of the Society and a third man of their choosing, shall be deemed most worthy, upon his delivery of an original patriotic address. Established 1902	1,000 00
PHILOLEXIAN PRIZE FUND:	
From the Philolexian Society, the income to be paid to the Society for prizes. Established 1903-4	1,326 80
PHŒNIX LEGACY:	
On account of one-third part of the residuary estate of the late Stephen Whitney Phœnix, bequeathed to Columbia College in 1881	146,305 19
ALEXANDER MONCRIEF PROUDFIT FELLOWSHIP FUND:	
Legacy from the late Alexander Moncrief Proudfit, of the class of 1892, to found a fellowship for the encouragement of study in English Literature, to be known as the "Alexander Moncrief Proudfit Fellowship in Letters," to be held only by such persons as, being the sons of native-born American parents, shall have taken the degree of Bachelor of Arts after a three years' residence in Columbia College, and shall, while enjoying such fellowship, or the income thereof, remain unmarried. Established 1899	15,000 00
MARIA McLEAN PROUDFIT FELLOWSHIP FUND IN MEDICINE:	
Legacy from the late Alexander Moncrief Proudfit, of the class of 1892, to found a fellowship to be known as the "Maria McLean Proudfit Fellowship," to be held only by such persons as, being the sons of native-born American parents, shall, under the direction of the Medical Faculty of Columbia College, pursue advanced studies in Medicine, and shall, while enjoying this fellowship, or the income thereof, remain unmarried. Established 1889	15,000 00
JOSEPH PULITZER FUND FOR SCHOOL OF JOURNALISM:	
Gift from Joseph Pulitzer to establish and endow a School of Journalism in Columbia University. Established 1903	1,000,000 00
Carried forward	$2,412,102 73

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Brought forward	$2,412,102 73
PULITZER SCHOLARSHIP FUND:	
Gift of $100,000 by Joseph Pulitzer to found thirty scholarships for graduates of City Grammar Schools; one-half the sum to be used on improvements on the new site at 116th Street. Established 1893	50,448 75
SCHERMERHORN SCHOLARSHIP FUND:	
Bequest of John J. Schermerhorn, of the Class of 1825, "for the purpose of free scholarships, the nomination to which shall vest in my nearest male relative in each generation during his lifetime." Established 1877	5,000 00
SCHIFF FELLOWSHIP FUND:	
Gift of Jacob H. Schiff to found a fellowship in the School of Political Science, to be annually awarded by the Faculty on the nomination of the donor or his eldest living male descendant, etc. Established 1898	15,000 00
CARL SCHURZ FELLOWSHIP FUND:	
From the Carl Schurz Fund Committee in honor of Carl Schurz. Established 1900	10,000 00
CARL SCHURZ LIBRARY FUND:	
From the Carl Schurz Fund Committee in honor of Carl Schurz, the income to be devoted to the purchase of books, maps, pamphlets and the like, in the field of the German Language and Literature. Established 1900	10,000 00
SEIDL FUND:	
The proceeds of a memorial performance held at the Metropolitan Opera House on March 23, 1899, in honor of the late Anton Seidl, the income of the fund to be paid to Mrs. Seidl during her lifetime, and thereafter "to be awarded at least every second year to the most promising candidate, either man or woman, prepared to devote himself to the study of musical composition at Columbia University, or elsewhere in this country, or abroad."	12,000 00
SLOANE MATERNITY HOSPITAL FUND:	
Gift of William D. Sloane and Emily Thorne Sloane, his wife, as an endowment to the Sloane Maternity Hospital, to make all its beds free in perpetuity. Established in 1889	475,000 00
SMITH PRIZE FUND, SCHOOL OF MEDICINE:	
Gift of relatives, friends and pupils of the late Joseph Mather Smith, M.D., as a memorial of his services as Professor in the College of Physicians and Surgeons from 1826 to 1866. An annual prize of $100 is to be awarded for the best essay on the subject for the year by an alumnus of the College	2,337 81
STEVENS PRIZE FUND, SCHOOL OF MEDICINE:	
Established by the late Alexander Hodgson Stevens, formerly President of the College of Physicians and Surgeons. The income of the fund is awarded every three years for the best medical essay covering original research as determined by the committee in charge of the prize. To be next awarded in June, 1906	1,899 88
Carried forward	$2,993,789 17

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Brought forward		$2,993,789 17
STUART SCHOLARSHIP FUND:		
The gift of Mrs. Cornelia A. Atwill, in memory of her grandsons, Sidney Barculo Stuart, of the class of 1880, and Eugene Tolman Stuart, of the class of 1881, to found two scholarships in the College, to be known as "Stuart Scholarships." Established 1895		6,000 00
TOPPAN PRIZE FUND:		
Gift of Mrs. Sarah M. Toppan to establish this fund in memory of her late husband, Robert Noxon Toppan. The income to be used annually in providing the Robert Noxon Toppan Prize in the School of Law. Established 1904		4,000 00
TROWBRIDGE FELLOWSHIP FUND:		
Gift of the Alumni Association of the School of Mines as a Memorial of the late Professor Trowbridge, to establish the "William Petit Trowbridge Fellowship in Engineering." The income of the fund, to be not less than $500 per year, is payable to the widow of Professor Trowbridge during the pleasure of the Trustees. Established 1893		10,000 00
TRUST FUND FOR PSYCHOLOGY:		
Gift of John D. Rockefeller, as an endowment of the head professorship of the Psychological Department of Columbia University. Established 1899		100,000 00
TYNDALL FELLOWSHIP FUND:		
Gift of the late Professor John Tyndall of London, the income to be applied to the support of "American pupils who may have shown decided talent in Physics, etc." Established 1885.		10,945 50
VANDERBILT CLINIC ENDOWMENT FUND:		
Gift of Cornelius, William K., Frederick W. and George W. Vanderbilt, as a perpetual memorial to their father, the late William H. Vanderbilt, as an endowment for the Vanderbilt Clinic. Established 1896		115,000 00
WARING FUND:		
The Chamber of Commerce of the State of New York, in the latter part of the year 1898, raised by public subscription the sum of $100,000, to perpetuate the memory of the late George E. Waring. The income of the fund (to be not less than $4,000 per year) is to be paid semi-annually to the widow and daughter of Colonel Waring during their lifetime, and thereafter "the income shall be devoted to the purpose of instruction in municipal affairs in such manner as the President and Board of Trustees of said College may direct."		
For Mrs. Waring	$50,000 00	
For Miss Waring	50,000 00	100 000 00
		$3,339,734 67

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Schedule 15

INVESTMENT OF SPECIAL AND GENERAL FUNDS IN PERSONAL SECURITIES

I. Special Funds

BONDS.

$4,000 Belleville & Carondelet R. R. Co's 6 per cent. First Mortgage Bonds, due 1923	$4,574 00
18,000 Buffalo, Rochester & Pittsburgh R. R. Co's 5 per cent. General Mortgage Gold Bonds, due 1937	17,940 32
5,000 Canada Southern R. R. Co's 5 per cent. Second Mortgage Bonds, due 1913	5,000 00
20,000 Central R. R. Co. of New Jersey 5 per cent. Consolidated Mortgage Bonds, due 1987	20,000 00
50,000 Chesapeake & Ohio R. R. Co's 4½ per cent. General Mortgage Bonds, due 1992	53,987 50
1,000 Chesapeake & Ohio R. R. Co's 5 per cent. First Mortgage Gold Bond, due 1940 (Craig Valley Branch)	1,000 00
10,000 Chicago & Northwestern R. R. Co's 4 per cent. Extension Bonds, due 1926	10,000 00
250,000 Chicago & Northwestern R. R. Co's 5 per cent. Sinking Fund Debenture Bonds, due 1933	250,000 00
200,000 Columbia College 3 per cent. Mortgage Gold Bonds, due 1909	200,000 00
75,000 Duluth & Iron Range R. R. Co's 5 per cent. First Mortgage Bonds, due 1937	75,000 00
6,000 Georgia Pacific R. R. Co's 6 per cent. First Mortgage Bonds, due 1922	6,885 00
24,000 Illinois Central R. R. Co's 4 per cent. Bonds, due 1953	21,950 67
10,000 Lehigh & Hudson River R. R. Co's 6 per cent. (reduced to 5 per cent.) First Mortgage Gold Bonds, due 1911	10,000 00
28,000 Lehigh Valley R. R. Co's 4½ per cent. First Mortgage Bonds, due 1940	28,000 00
10,000 Lehigh Valley Terminal R. R. Co's 5 per cent. First Mortgage Gold Bonds, due 1940	10,000 00
29,000 Manhattan Railway Co's 4 per cent. Consolidated Bonds, due 1990	27,948 75
225,000 Michigan Central R. R. Co's (Detroit & Bay City) 5 per cent. First Mortgage Bonds, due 1931	225,000 00
25,000 New Jersey Junction R. R. Co's 4 per cent. First Mortgage Bonds, due 1986	25,000 00
3,000 New York Central & Hudson River R. R. Co's 4 per cent. Gold Extended Debt Certificates of 1853, due 1905	3,000 00
25,000 Niagara Falls Power Co's 5 per cent. First Mortgage Consolidated Bonds, due 1932	22,500 00
95,000 Northern Pacific R. R. Co's (prior lien railway and land grant) 4 per cent. Gold Bonds, due 1997	95,750 00
Carried forward	$1,113,536 24

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Brought forward	$1,113,536 24	
$211,000 Northern Pacific-Great Northern 4 per cent. Joint Bonds, due 1921 (C. B. & Q. collateral)	200,000 00	
50,000 Oregon Short Line R. R. Co's 5 per cent. Consolidated First Mortgage Gold Bonds, due 1946	56,112 50	
28,000 St. Paul, Minneapolis & Manitoba R. R. Co's 4½ per cent. Consolidated Mortgage Bonds, due 1933	28,000 00	
50,000 Scioto Valley & New England R. R. Co's 4 per cent. Gold Bonds, due 1989	50,000 00	
32,000 West Shore R. R. Co's 4 per cent. First Mortgage Bonds, due 2361	31,945 50	
50,000 Wisconsin Central R. R. Co.'s 4 per cent. First Mortgage Gold Bonds, due 1949	45,750 00	$1,525,344 24
STOCKS.		
16 shares Albany & Susquehanna R. R. Co	2,000 00	
300 shares Atlanta & Charlotte Air Line R. R. Co	51,337 50	
19 shares Catawissa R. R. Co. preferred ($50 par value)	475 00	
8 shares Cincinnati, Hamilton & Dayton R. R. Co. preferred 11 shares Cincinnati, Hamilton & Dayton R. R. Co. common	365 00	
5 shares Consolidated Gas Co. of New York	193 53	
122 shares Delaware & Hudson Co	12,895 00	
103 shares Delaware, Lackawanna & Western R. R. Co. ($50 par value)	6,180 00	
262 shares Illinois Central R. R. Co	31,265 33	
500 shares Manhattan Railway Co	70,500 00	
13 shares National Bank of Commerce of New York	1,142 50	
72 shares New York, New Haven & Hartford R. R. Co	11,605 50	
10,000 shares Pennsylvania R. R. Co. ($50 par value)	625,000 00	
33 shares Pittsburg, Fort Wayne & Chicago R. R. Co	4,125 00	
18 shares Rensselaer & Saratoga R. R. Co	2,290 91	
155 shares United New Jersey R. R. & Canal Co	28,894 88	$848,270 15
BONDS AND MORTGAGES.		
Louisa M. Agostini, on 17 West 47th Street, New York, at 4½ per cent., due 1907	61,500 00	
Jacob D. Butler, on "Wheelock Property," 161st Street and Broadway, New York, at 4 per cent., due 1904	250,000 00	
Eversley Childs and William C. Pate, on Malbone Street, Brooklyn, at 5 per cent., due 1904	8,750 00	
Julius B. Fox, on 329 East 23d Street, New York, at 5 per cent., due 1906	28,000 00	
Morris Goldberg and Nathan Schancupp, on 136 Monroe Street, New York, at 4½ per cent., due 1903	15,000 00	
Carried forward	$363,250 00	$2,373,614 39

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Brought forward	$363,250 00	$2,373,614 39
Francis Huber, on 209 East 17th Street, New York, at 4 per cent., due 1900	15,000 00	
Leopold Kaufmann, on 57 Morton Street, New York, at 5 per cent., due 1906	30,000 00	
Leopold Kaufmann, on 212 Grand Street, New York, at 4½ per cent., due 1907	33,000 00	
Lillie A. King, on 2262 Second Avenue, New York, at 4 per cent., due 1904	15,000 00	
Alexander Latner, on 437 East 86th Street, New York, at 4½ per cent., due 1906	6,000 00	
$57,000 Lawyers' Mortgage Co's Mortgage Certificates, secured by bond and mortgage of John T. Williams on property on Church Street near White Street, New York, at 4 per cent., due 1904	57,000 00	
Frank Maunsell, on 163-173 Sterling Place, Brooklyn, at 4 per cent., due 1905	35,000 00	
Elizabeth Moore, on 44 West 48th Street, New York, at 4½ per cent., due 1907	32,500 00	
William Moores, on north side 129th Street, 315 feet east of Fourth Avenue, New York, at 4 per cent., due 1902	15,000 00	
Austin Flint Morris, on 13 West 69th Street, New York, at 4 per cent., due 1905	10,000 00	
Sally P. Sampson, on 10 West 48th Street, New York, at 4 per cent., due 1907	40,000 00	
Amy A. Sands, on 58 West 48th Street, New York, at 4 per cent., due 1907	35,000 00	
Moritz Simon and Wife, on 93 Park Row, New York, at 4 per cent., due 1904	15,000 00	
Almira Hopkins Spencer and Linus P. Bissell, on property at Litchfield, Conn., at 5 per cent., due 1897	3,500 00	
H. Wood Sullivan, on Sterling Street, Brooklyn, at 5 per cent., due 1902	4,000 00	
William Hanford White, on 56 West 48th Street, New York, at 4½ per cent., due 1907 (part)	2,350 03	
Frances F. Wood, on 33 West 47th Street, New York, at 4½ per cent., due 1907	49,500 06	
Edmund H. Wright, on Schenectady Avenue, Brooklyn, at 5 per cent., due 1899	5,000 00	766,100 03
MISCELLANEOUS.		
Certificate of Deposit of New York Life Insurance & Trust Co., at 3½ per cent		20 25
		3,139,734 67

II. General Funds.

BONDS AND MORTGAGES.

Marian de Forest Clark, on 21 West 47th Street, New York, at 4½ per cent., due 1907	60,000 00	
William H. Vanden Burg, on 30 West 48th Street, New York, at 4½ per cent., due 1907	50,000 00	
William Hanford White, on 56 West 48th Street, New York, at 4½ per cent., due 1907 (part)	34,149 97	144,149 97
		$3,283,884 64

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Schedule 16

ARREARS OF RENT, JUNE 30, 1904

Arrears of Rent, June 30, 1903	$2,386 00	
Collected in 1903-04	2,386 00	
Total amount of Rents Receivable, 1903-4	404,587 04	
Collected in 1903-4	395,125 54	
Arrears accrued during 1903-4		$9,461 50
200 and 200a Barclay Street and Park Place, E. A. Anderson, Trustee, 6 months to May 1, 1904		1,300 00
201 and 201a Barclay Street and Park Place, E. A. Anderson, Trustee, 6 months to May 1, 1904		1,250 00
210 Barclay Street, C. A. Baldwin, 1 year to February 1, 1904		1,200 00
216 College Place, Mattson Rubber Co., 6 months to May 1, 1904		510 00
237 Greenwich Street, Rev. Gabriel A. Healey, 1 year to May 1, 1904.		1,250 00
41 West 47th Street, Kathleen T. Harper, balance 1 year to May 1, 1904		889 00
43 West 48th Street, Corinne B. de Garmendia, 6 months to May 1, 1904		407 50
48 West 49th Street, John Smith Rice, 6 months to May 1, 1904		325 00
68 West 49th Street, Julia M. Tierney, 6 months to May 1, 1904		369 00
45 West 49th Street, T. D. W. Moore, Trustee, 6 months to May 1, 1904		376 00
67 West 49th Street, Mrs. Nathan G. Bozeman, 6 months to May 1, 1904		275 50
15 West 50th Street, Caroline F. Hastings, 6 months to May 1, 1904		401 50
53 West 50th Street, Amelia A. W. Peck, 1 year to May 1, 1904		543 00
52 West 51st Street, Leonidas P. Williams, 6 months to May 1, 1904		365 00
		$9,461 50

NEW YORK, September 1, 1904.

JOHN McL. NASH,
Treasurer.

We certify that we have examined the accounts of the Treasurer of Columbia College for the year ending June 30, 1904, and find them to be correct and duly vouched for.

PATTERSON, TEELE & DENNIS,
Certified Public Accountants.

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BARNARD COLLEGE

FINANCIAL STATEMENT

1903–1904

RECEIPTS

Schedule I.

BALANCE ON HAND		$30,732 53
DIVIDENDS	$27,615 00	
INTEREST	867 85	
		28,482 85
UNDERGRADUATE FEES:		
Tuition receipts	55,342 01	
Diploma	1,185 00	
Matriculation	880 00	
Examination	190 00	
Biology	210 00	
Breakage	156 01	
		57,963 02
MISCELLANEOUS SOURCES		1,475 43
GIFTS FOR DESIGNATED PURPOSES:		
General Funds	7,760 00	
Improvement of Milbank Quadrangle	3,760 00	
Scholarships	1,840 00	
Ella Weed Library	1,802 00	
Care of the Grounds	400 00	
Department of Geology	300 00	
School for Classical Studies at Rome	100 00	
Chorus	55 00	
Department of Botany	45 35	
		16,062 35

Schedule II.

GIFTS FOR PERMANENT PURPOSES:		
Endowment Fund:		
Mr. J. D. Rockefeller	3,950 00	
Scholarship Fund:		
Students' Committee	100 00	
		4,050 00
Total receipts		$138,766 18

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BARNARD COLLEGE

1903–1904

DISBURSEMENTS

GENERAL PURPOSES:		
Educational Administration	$75,380 30	
Business Administration	2,000 00	
Care of Buildings and Grounds	19,913 08	
		$97,293 38
ELLA WEED MEMORIAL LIBRARY:		
Salaries	425 00	
Purchase of books, repairs, and incidentals,	238 01	
		663 01
AID TO STUDENTS:		
Scholarships:		
Students	1,800 00	
Lucille Pulitzer	450 00	
Jennie B. Clarkson	150 00	
Ella Weed	150 00	
Brearley School	150 00	
Emily James Smith	150 00	
Anna E. Barnard	150 00	
Eliza T. Chisholm Memorial	150 00	
The Graham School	150 00	
Trustees Competitive Entrance	150 00	
Veltin School Alumnæ	150 00	
Mrs. Donald McLean	150 00	
Jessie Kaufmann	150 00	
Fiske	520 00	
Anonymous	330 00	
Lectureship:		
Hartley House	300 00	
Prizes:		
Herrman Botanical	50 00	
Kohn Mathematical	50 00	
Balance: Pulitzer Scholarships	620 00	
Balance: Kaufmann Scholarship	20 00	
		5,790 00
SCIENTIFIC DEPARTMENTS:		
Department of Botany	497 03	
Department of Chemistry	700 99	
Department of Geology	561 08	
Department of Physics	498 64	
Department of Zoölogy	647 94	
		2,905 68
FEES RETURNED TO STUDENTS		287 39
UNDERGRADUATE INSTRUCTION AT:		
Columbia University	1,920 00	
Teachers College	2,134 00	
		4,054 00
MISCELLANEOUS:		
American School for Classical Studies at Rome	100 00	
St. Louis Educational Exhibit	188 99	
		288 99
INVESTMENTS		26,190 97
Total expenditures		$137,473 42
CASH ON HAND, JULY 1, 1904		1,292 76
Total		$138,766 18

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TEACHERS COLLEGE

FINANCIAL STATEMENT

1903–1904

RECEIPTS

Schedule I.

BALANCE ON HAND JULY 1, 1903			$19,140 11
DIVIDENDS AND INTEREST			12,789 34
FEES: Tuition, Matriculation, and Graduation			255,428 12
MISCELLANEOUS SOURCES			10,182 96
GIFTS FOR DESIGNATED PURPOSES:			
SCHOLARSHIPS:			
Shackelford Scholarship:			
"A Friend"	$75 00		
Pierrepont Scholarship:			
"A Friend"	75 00		
Southern Scholarships:			
Mr. John Crosby Brown. $500 00			
General Education Board, Mr. George Foster Peabody, Treas. 1,950 00			
	2,450 00		
Pulitzer Scholarships:			
Mr. Joseph Pulitzer	2,996 50		
Macy Scholarships:			
Mr. V. Everit Macy	1,000 00		
Bryson Scholarship:			
Mrs. MacCartee	150 00		
TEACHERS COLLEGE ALUMNI FUND:			
Teachers College Alumni Association, Miss Lucy H. Weiser, Treas.			
For Speyer School Library	$100 00		
NEW YORK STATE LIBRARY FUND:			
New York State $100 00			
Cash 1 11			
	101 11		
		$6,947 61	
Carried forward		$6,947 61	$297,540 53

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Brought forward			$6,947 61	$297,540 53
GIFTS FOR GENERAL PURPOSES:				
Through Trustees	$44,450 00			
A Western Friend	12,000 00			
Mrs. Wm. E. Dodge	3,000 00			
Mrs. A. Newbold Morris	500 00			
Mr. Morris K. Jesup	500 00			
Mrs. Elliot F. Shepard	500 00			
Miss M. W. Bruce	500 00			
Mr. and Mrs. Carnegie	500 00			
Mr. Clarence M. Hyde	500 00			
Miss Caroline White	500 00			
Mr. Henry Phipps	500 00			
Mr. and Mrs. Steward	300 00			
Rev. D. Stuart Dodge	250 00			
Mrs. R. T. Auchmuty	250 00			
Mr. James H. Jones	200 00			
Miss Mary Benson	100 00			
Mrs. George W. Mead	100 00			
Mrs. R. G. Dun	100 00			
Miss Helen P. Stokes	100 00			
Mr. Samuel Sloan	100 00			
Miss Helen C. Butler	25 00			
			64,975 00	
				71,922 61

Schedule II.

ADDITIONS TO PERMANENT FUND:			
FOR BUILDINGS AND GROUNDS:			
Gift of Executors of the Estate of Mr. William E. Dodge. Four lots north side 120th Street, between Broadway and Amsterdam Avenue	$50,000 00		
Horace Mann School Building Fund:			
Gift of Mr. V. Everit Macy	40,000 00		
Physical Education Building Fund:			
Gift of Mrs. F. F. Thompson	158,000 00		
College Greenhouse Fund:			
Gift of Mr. George Foster Peabody	1,200 00		
		249,200 00	
ADDITIONS TO SPECIAL LOAN FUNDS:			
General Loan Fund:			
Gift of Mrs. F. F. Thompson	$500 00		
Interest on Loan	15 83		
	$515 83		
Ruth Loan Fund:			
Interest on Loans	61 85		
		577 68	
			249,777 68
Total Receipts			$619,240 82

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DISBURSEMENTS

EDUCATIONAL ADMINISTRATION:			
Educational Administration and Instruction and Departmental Appropriations	$268,057 08		
Fellowships and Scholarships.	11,225 00		
		$279,282 08	
BUILDINGS AND GROUNDS, CURRENT EXPENSES		42,157 02	
LIBRARY AND MUSEUM:			
Bryson Library	$5,436 39		
Educational Museum	2,651 36		
		8,087 75	
BUSINESS ADMINISTRATION		15,500 37	
ADDITIONS TO BUILDINGS AND GROUNDS		221,134 39	
INVESTMENTS ACQUIRED		40,025 08	
MISCELLANEOUS		5,442 16	
Total Expenditures			$611,628 85
Balance on hand June 30, 1904			7,611 97
Total			$619,240 82

PRINCIPAL AND INVESTMENT OF PERMANENT FUNDS TOGETHER WITH THE ADDITIONAL AMOUNTS INVESTED IN BUILDINGS AND GROUNDS AND THE UNEXPENDED BALANCES OF PRINCIPAL OF SAID FUNDS, JUNE 30, 1904

	Principal.	Funds Invested.	Uninvested Balances	Other than Principal Invested.	Total Invested.
College Grounds	$ 432,000.00	$ 432,000.00		$ 92,703.00	$ 524,703.00*
Main Building	411,390.09	411,319.18	$70.91	131,000.00	542,319.18
Milbank Memorial Hall	256,870.89	256,870.89			256,870.89
Macy Memorial Hall	252,233.03	252,183.03	50.00		252,183.03
Horace Mann School	368,093.71	368,093.71	Nil	75,431.25	443,524.96†
Physical Education Building	209,300.00	209,154.98	145.02		209,154.98
Speyer School (Land and Building)	133,024.47	132,915.57	108.90		132,915.57
College Greenhouse	1,200.00	1,200.00	Nil		1,200.00‡
	$2,064,112.19	$2,063,737.36	$374.83	$299,134.25	$2,362,871.61

* $45,203.00 has been borrowed, and mortgages for $47,500.00 were assumed.

† $75,431.25 of the Caroline L. Macy bequest is invested in the Horace Mann School Building. There was added to the principal of this fund the sum of $40,000.00, being gifts of Mr. V. Everit Macy.

‡ In addition to the above, $401.05 of the General Funds was expended on the Greenhouse and charged off against the year's income.

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PRINCIPAL AND INVESTMENT OF SPECIAL FUNDS TOGETHER WITH THE UNINVESTED BALANCES, JUNE 30, 1904

	Principal.	Invested in Securities.	Invested in Horace Mann School Bldg.	Uninvested.
Caroline L. Macy Bequest..	$193,800.00	$118,165.36	$75,431.25	$203.39
Bryson Library Fund.....	76,000.00	76,000.00		
Bryson Library Avery Collection Fund.....	2,000.00	2,000.00		
Kemp Estate Legacy Fund	10,000.00	10,000.00		
Hoadley Scholarship Fund.	3,000.00	3,000.00		
Tileston Scholarship Fund.	2,544.69	2,453.75		90.94
Caroline Scholarship Fund.	5,027.08	5,027.08		
General Endowment Fund.	15,000.00	15,000.00		
	$307,371.77	$231,646.19	$75,431.25	$294.33

PRINCIPAL AND INVESTMENT (LOANED STUDENTS) OF SPECIAL LOAN FUNDS, TOGETHER WITH UNINVESTED BALANCES, JUNE 30, 1904

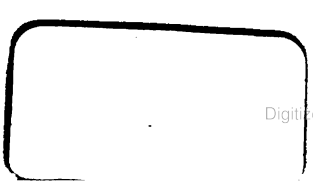
	Principal.	Loaned Students.	Uninvested.
Ruth Loan Fund.....	$5,337.17	$3,777.00	$1,560.17
General Loan Fund.....	3,648.04	2,956.75	691.29
	$8,985.21	$6,733.75	$2,251.46

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